THE REDLAND POCKET GUIDE

Product and installation guidance

Redland

Part of the MONIER GROUP


Palmers Green, North London


Prestbury, Cheshire

THE REDLAND POCKET GUIDE

Product and installation guidance

Welcome to the Redland roofing products and services guide for stockists and installers.

We've prepared this quick reference pocket guide to help you select and cost Redland roofing systems as quickly and easily as possible. Use it to find specifications and essential information on all the tiles and products in our range. We've laid the guide out so you can see tile colours, styles and sizes at a glance, and included full installation instructions at the back.

We've also provided quick links, using QR codes, which deliver up-to-the-minute information on the move on our specially developed Redland App.

Alternatively, type in the address alongside each code to be taken to the relevant pages on our website.

Finding the information you need

Ease and accessibility are priorities not just for our roofing systems and services, but for the many ways we offer our customers access to the most up-to-date information and advice.

Take this guide you're reading right now; it's been laid out to make finding what you need as simple and as straightforward as possible.

www.redland.co.uk
The Redland Pocket Guide

You can use the QR codes we've provided to access technical information and product performance data on each tile to help you with your final selection. You'll see these codes on most pages.

They're designed for use with smartphones, tablets and can also be read using your PC webcam, as long as you have the appropriate QR application installed. (If you don't have a QR application, you can download them, usually for free, from your phone app provider).

Range Selection - Slate Range

Over the next few pages, you can see our complete range of slate, plain and profile tiles in all the colours and finishes available. For more information, simply turn to the pages indicated alongside each one.

Cambrian Traditional

Page 23

30 | Slate Grey

Cambrian Heritage

Page 23

31 | Slate Grey Pre-Weathered

Cambrian Premier

Page 23

28 | Heather

Cambrian Premier Plus

Page 23

29 | Langdale Green

Landmark Slate 10 Premier Plus

Page 24

47 | Brecon Grey

Saxon 10 Premier

Page 25

63 | Black

64 | Blue

Richmond 10 Traditional

Page 26

30 | Slate Grey

Richmond 10 Premier

Page 26

38 | Flame Red

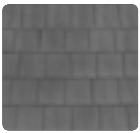
40 | Rustic Brown

63 | Black

64 | Blue

MockBond Richmond 10 Traditional

Page 27



30 | Slate Grey

MockBond Richmond 10 Premier

Page 27

38 | Flame Red

40 | Rustic Brown

63 | Black

Stonewold II Traditional

Page 28

30 | Slate Grey

34 | Terracotta

36 | Tudor Brown

Mini Stonewold Traditional

Page 29

30 | Slate Grey

34 | Terracotta

36 | Tudor Brown

39 | Farmhouse Red

52 | Breckland Brown

53 | Breckland Black

Mini Stonewold Premier

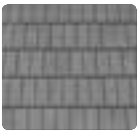
Page 29

63 | Black

77 | Charcoal Grey

MockBond Mini Stonewold Traditional

Page 30



30 | Slate Grey

34 | Terracotta

39 | Farmhouse Red

52 | Breckland Brown

MockBond Mini Stonewold Premier

Page 30

77 | Charcoal Grey

Natural Slate

Page 31

01 | Del Carmen® Ultra Grey/Blue

MockBond Mini Stonewold, Farmhouse Red, Wynbrook Homes, Beeston, Nottinghamshire

Range Selection - Plain Tile Range

Rosemary Clay Craftsman

Page 33

84 | Hawkhurst

85 | Albury

Rosemary Clay Classic

Page 34

80 | Red

94 | Russet Mix

81 | Light Mixed Brindle

82 | Medium Mixed Brindle

87 | Blue Brindle

91 | Burnt Blend

92 | County Blend

83 | Heather Brindle

95 | Dark Antique

Heathland Heritage

Page 35

20 | Manor House Mix

Heathland Premier

Page 35

23 | Autumn

25 | Ember

Heathland Premier Plus

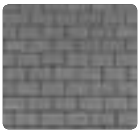
Page 35

22 | Wealden Red

26 | Elizabethan

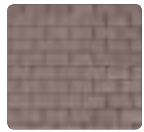
Plain Tile Traditional

Page 36



30 | Slate Grey

34 | Terracotta



36 | Tudor Brown

39 | Farmhouse Red

52 | Breckland Brown

53 | Breckland Black

Plain Tile Heritage

Page 36

02 | Brown (Granular)

03 | Antique Red (Granular)

12 | Cotswold (Granular)

18 | Hedgerow Brown (Granular)

Plain Tile Premier

Page 36

27 | Natural Red (Sanded)

63 | Black

78 | Rustic Red

DuoPlain Premier

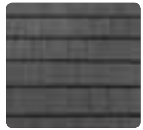
Page 37

11 | Tuscan Red

38 | Flame Red

40 | Rustic Brown

45 | Rustic Black



77 | Charcoal Grey

78 | Rustic Red

Fontenelle Interlocking Clay Plain Tile Traditional

Page 38

80 | Red

Fontenelle Interlocking Clay Plain Tile Heritage

Page 38

82 | Brindle

Fontenelle Interlocking Clay Plain Tile Premier

Page 38

79 | Black

Rosemary Medium Mixed Brindle, Persimmon Homes, Petworth, West Sussex

Range Selection - Profile Tiles Range

Landmark Double Pantile Premier Plus

Page 41

43 | Terracotta Brindle

44 | Brown Brindle

Landmark Double Roman Premier Plus

Page 42

43 | Terracotta Brindle

44 | Brown Brindle

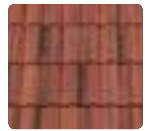
Grovebury Traditional

Page 43

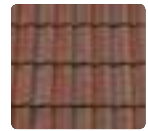
30 | Slate Grey

34 | Terracotta

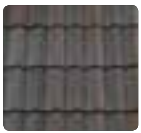
36 | Tudor Brown



39 | Farmhouse Red



52 | Breckland Brown



53 | Breckland Black

Grovebury Heritage

Page 43

02 | Brown (Granular)

03 | Antique Red (Granular)

Grovebury Premier

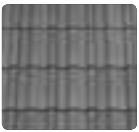
Page 43

77 | Charcoal Grey

78 | Rustic Red

50 Double Roman Traditional

Page 44



30 | Slate Grey

34 | Terracotta

36 | Tudor Brown

39 | Farmhouse Red

52 | Breckland Brown

53 | Breckland Black

50 Double Roman Heritage

Page 44

02 | Brown (Granular)

03 | Antique Red (Granular)

12 | Cotswold (Granular)

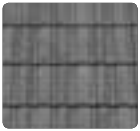
50 Double Roman Premier

Page 44

78 | Rustic Red

Renown Traditional

Page 45

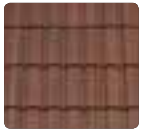


30 | Slate Grey

34 | Terracotta

36 | Tudor Brown

39 | Farmhouse Red



52 | Breckland Brown

Renown Heritage

Page 45

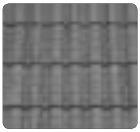
02 | Brown (Granular)

03 | Antique Red (Granular)

12 | Cotswold (Granular)

Regent Traditional

Page 46



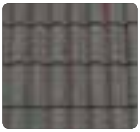
30 | Slate Grey

34 | Terracotta

36 | Tudor Brown

39 | Farmhouse Red

52 | Breckland Brown



53 | Breckland Black

Regent Heritage

Page 46

02 | Brown (Granular)

03 | Antique Red (Granular)

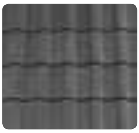
Regent Premier

Page 46

78 | Rustic Red

Fenland Pantile Traditional

Page 47



30 | Slate Grey

34 | Terracotta

36 | Tudor Brown

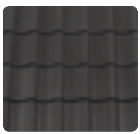
39 | Farmhouse Red

52 | Breckland Brown

53 | Breckland Black

Fenland Pantile Premier

Page 47



63 | Black

Redland 49 Traditional

Page 48

30 | Slate Grey

34 | Terracotta

36 | Tudor Brown

39 | Farmhouse Red

52 | Breckland Brown

Redland 49 Heritage

Page 48

02 | Brown (Granular)

03 | Antique Red (Granular)

Redland 49 Premier

Page 48

78 | Rustic Red

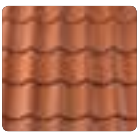
Postel Clay Roman Heritage

Page 49

82 | Brindle

Cathedral Clay Pantile Traditional

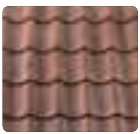
Page 50



80 | Terracotta

Cathedral Clay Pantile Heritage

Page 50



82 | Brindle

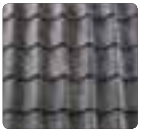
Old Hollow Clay Pantile Premier

Page 51

80 | Vintage Red

Old Hollow Clay Pantile Premier Plus

Page 51



60 | Vintage Blue

Fenland Pantile, Terracotta, Private House, Belton, Lincolnshire

Slate Range

Our range of slate style products offer strength, versatility and easy installation. They are available in a wide range of colours and finishes and once up, they last for years and go on looking great.

CAMBRIAN SLATE

Size (overall)	300 x 336mm
Minimum Pitch and Headlap	15° at 75mm headlap
	25° at 50mm headlap
(The minimum pitch is based on a maximum rafter length of 10 metres. For rafter lengths greater than this, please contact the Technical Solutions Hotline on 08708 702595)	
Maximum Pitch	90°
(subject to fire resistance requirements above 69°)	
Maximum Headlap	90mm
Minimum Gauge/Batten Spacing	210mm
Maximum Gauge/Batten Spacing	below 25° 225mm
	25° and over 250mm
Hanging Length (approx.)	294mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 slate	300mm
Covering capacity at max gauge	13.3 slates/m^2
Weight (at max. gauge approx.)*	17kg/m^2
per pallet, including pallet (approx.)	0.77 tonnes
Battens Required (at max. gauge)	4.0m/m^2
Batten Size	
Rafter centres up to 450mm	38 x 25mm
Rafter centres up to 600mm	50 x 25mm
Fixing Clips	Eaves, Verge & Slate Clips
Nail Size for Slates#	30 x 2.65mm (S/S)
Number of Slates/Pallet	600
Colour	28 29 30 31

www.redland.co.uk/cambrianslate

4701	Cambrian Slates
4703	Left Hand Verge Slates
4702	Slate-and-a-Halves
4704	Left Hand Verge Slate-and-a-Halves
4705	Double Slates
9570	Ambi-Dry Verge (Pack of 10)
9491	Ambi-Dry Eaves/Ridge Pack
7777	Universal Angle Hip
7778	Universal Angle Hip with Nail Holes
7779	Universal Angle Block-End Hip
9048	Dry Hip Pack
9503	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9520	Universal Angle Ridge/Hip Junction
9504	Mitred Hip Pack
7211	Mitred Hip Block-End Ridge
9069	Rapid Hip Support Tray (1.2m)
9553	Cambrian GRP Valley
9575	Dry Valley Low Profile
9548	Top Edge Abutment Ventilation Pack
9596	GRP Secret Gutter
9578	Bonding Gutter High Profile
9580	Bonding Gutter Low Profile
7146	Universal Angle Ridge
7518	Universal Angle Block-End Ridge
7151	Hi-Pitch Universal Angle Ridge (335mm long)
9059	DryVent Ridge Pack (Universal Angle)
9308	Rapid Vented Ridge (Universal Angle)
9773	Ridge End Cap Universal Angle
7148	Universal Angle Monoridge
7297	Universal Angle Block-End Monoridge Left-Hand
7298	Universal Angle Block-End Monoridge Right-Hand
9084	DryVent Monoridge Pack
7254	Universal Angle Ridge Vent Terminal
7242	Universal Angle Gas Flue Ridge Terminal
7705	4.5k ThruVent Tile (inc. Underlay Seal)
7349	Hi-Flow ThruVent Tile (inc. Underlay Seal)
9196	Slate Clip (Pack of 100, +210 nails)
9193	Verge/Valley Clip (Pack of 20, +40 nails)
9192	Eaves Clip (Pack of 50, +50 nails)

* All weights nominal
#(S/S) Stainless Steel Annular Ring Shanked

LANDMARK SLATE 10

Size (overall)	418 x 330mm	
Minimum Pitch and Headlap	17.5° at 100mm headlap	
	22.5° at 75mm headlap	
(The minimum pitch is based on a maximum rafter length of 10 metres. For rafter lengths greater than this, please contact the Technical Solutions Hotline on 08708 702595)		
Maximum Pitch	90°	
(subject to fixing specification)		
Maximum Headlap	125mm	
Minimum Gauge/Batten Spacing	293mm	
Maximum Gauge/Batten Spacing	below 22.5° 318mm	
	22.5° and over 343mm	
Hanging Length (approx.)	395mm	
Cover (all figures are net and do not allow for wastage)		
Linear cover of 1 slate	300mm	
Covering capacity at max gauge	9.7 slates/m^2	
Weight (at max. gauge approx.)*	46kg/m^2	
per pallet, including pallet (approx.)	1.00 tonnes	
Battens Required (at max. gauge)	2.92m/m^2	
Batten Size		
Rafter centres up to 450mm	38 x 25mm	
Rafter centres up to 600mm	50 x 25mm	
Fixing Clips	Eaves, Verge & Slate Clips	
Nail Size for Slates#	45 x 3mm (A/A)	45 x 3.35mm (S/S)
Number of Slates/Pallet	210	
Colour	47	

www.redland.co.uk/landmarkslate

4671	Landmark 10 Slates
4672	Half Slate Pairs
9603	Dry Verge LH (Pack of 10)
9604	Dry Verge RH (Pack of 10)
9605	Dry Verge Eaves/Ridge Pack
8322	Universal Angle Hip
8321	Universal Angle Hip with Nail Holes
8327	Universal Angle Block-End Hip
9047	Dry Hip Pack
9524	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9520	Universal Angle Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9575	Dry Valley Low Profile
7175	Universal Valley Trough Tile
9548	Top Edge Abutment Ventilation Pack
9596	GRP Secret Gutter
9578	Bonding Gutter High Profile
9580	Bonding Gutter Low Profile
8319	Universal Angle Ridge
8320	Universal Angle Block-End Ridge
9059	DryVent Ridge Pack (Universal Angle)
9308	Rapid Vented Ridge (Universal Angle)
9773	Ridge End Cap Universal Angle
8324	Universal Angle Monoridge
8325	Universal Angle Block-End Monoridge Left Hand
8326	Universal Angle Block-End Monoridge Right Hand
9084	DryVent Monoridge Pack
8330	Universal Angle Ridge Vent Terminal
9141	Redline Ventilation Tile (inc. Underlay Seal)
7945	8.8k ThruVent Tile (inc. Underlay Seal)
9294	Tile Clip (Pack of 100, +100 nails)
9481	Verge Clip
9293	Eaves Clip
9334	45 x 3mm Aluminium Alloy Nails (for Tiles)
9350	45 x 3.35mm Stainless Steel ARS Nails (for Tiles)
9338	50 x 3.35mm Aluminium Alloy Nails (for Eaves Clips)
9261	Landmark Slate 10 Outlet Base

* All weights nominal

#(S/S) Stainless Steel Annular Ring Shanked

(A/A) Aluminium Alloy

SAXON 10

Size (overall)	418 x 330mm	
Minimum Pitch and Headlap	17.5° at 100mm headlap	
	22.5° at 75mm headlap	
(The minimum pitch is based on a maximum rafter length of 10 metres. For rafter lengths greater than this, please contact the Technical Solutions Hotline on 08708 702595)		
Maximum Pitch	90°	
(subject to fixing specification)		
Maximum Headlap	125mm	
Minimum Gauge/Batten Spacing	293mm	
Maximum Gauge/Batten Spacing	below 22.5° 318mm	
	22.5° and over 343mm	
Hanging Length (approx.)	395mm	
Cover (all figures are net and do not allow for wastage)		
Linear cover of 1 slate	300mm	
Covering capacity at max gauge	9.7 slates/m^2	
Weight (at max. gauge approx.)*	45kg/m^2	
per pallet, including pallet (approx.)	1.01 tonnes	
Battens Required (at max. gauge)	2.92m/m^2	
Batten Size		
Rafter centres up to 450mm	38 x 25mm	
Rafter centres up to 600mm	50 x 25mm	
Fixing Clips	Eaves, Verge & Slate Clips	
Nail Size for Slates#	45 x 3mm (A/A)	45 x 3.35mm (S/S)
Number of Slates/Pallet	216	
Colour	63 64	

www.redland.co.uk/saxonslate

4991	Saxon 10 Slates
4992	Half Slate Pairs
9603	Dry Verge LH (Pack of 10)
9604	Dry Verge RH (Pack of 10)
9605	Dry Verge Eaves/Ridge Pack
7777	Universal Angle Hip
7778	Universal Angle Hip with Nail Holes
7779	Universal Angle Block-End Hip
9047	Dry Hip Pack
9524	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9520	Universal Angle Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9575	Dry Valley Low Profile
7175	Universal Valley Trough Tile
9548	Top Edge Abutment Ventilation Pack
9596	GRP Secret Gutter
9578	Bonding Gutter High Profile
9580	Bonding Gutter Low Profile
7146	Universal Angle Ridge
7518	Universal Angle Block-End Ridge
9059	DryVent Ridge Pack (Universal Angle)
9308	Rapid Vented Ridge (Universal Angle)
9773	Ridge End Cap Universal Angle
7148	Universal Angle Monoridge
7297	Universal Angle Block-End Monoridge Left-Hand
7298	Universal Angle Block-End Monoridge Right-Hand
9084	DryVent Monoridge Pack
7254	Universal Angle Ridge Vent Terminal
9141	RedLine Ventilation Tile (Inc. Underlay Seal)
7944	8.8k ThruVent Tile (inc. Underlay Seal)
9294	Tile Clip (Pack of 100, +100 nails)
9481	Verge Clip
9293	Eaves Clip
9334	45 x 3mm Aluminium Alloy Nails (for Tiles)
9350	45 x 3.35mm Stainless Steel ARS Nails (for Tiles)
9338	50 x 3.35mm Aluminium Alloy Nails (for Eaves Clips)
9260	Saxon 10 Outlet Base

* All weights nominal

#(S/S) Stainless Steel Annular Ring Shanked

(A/A) Aluminium Alloy

RICHMOND 10

Size (overall)	418 x 330mm	
Minimum Pitch and Headlap	17.5° at 100mm headlap	
	22.5° at 75mm headlap	
(The minimum pitch is based on a maximum rafter length of 10 metres. For rafter lengths greater than this, please contact the Technical Solutions Hotline on 08708 702595)		
Maximum Pitch	90°	
(subject to fixing specification)		
Maximum Headlap	125mm	
Minimum Gauge/Batten Spacing	293mm	
Maximum Gauge/Batten Spacing	below 22.5° 318mm	
	22.5° and over 343mm	
Hanging Length (approx.)	395mm	
Cover (all figures are net and do not allow for wastage)		
Linear cover of 1 slate	300mm	
Covering capacity at max gauge	9.7 slates/m^2	
Weight (at max. gauge approx.)*	45kg/m^2	
per pallet, including pallet (approx.)	1.05 tonnes	
Battens Required (at max. gauge)	2.92m/m^2	
Batten Size		
Rafter centres up to 450mm	38 x 25mm	
Rafter centres up to 600mm	50 x 25mm	
Fixing Clips	Eaves, Verge & Slate Clips	
Nail Size for Slates#	45 x 3mm (A/A)	45 x 3.35mm (S/S)
Number of Slates/Pallet	216	
Colour	30 38 40 63 64	

www.redland.co.uk/richmond

4871	Richmond 10 Slates
4872	Half Slate Pairs
9603	Dry Verge LH (Pack of 10)
9604	Dry Verge RH (Pack of 10)
9605	Dry Verge Eaves/Ridge Pack
7777	Universal Angle Hip
7778	Universal Angle Hip with Nail Holes
7779	Universal Angle Block-End Hip
9047	Dry Hip Pack
9524	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9520	Universal Angle Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9575	Dry Valley Low Profile
7175	Universal Valley Trough Tile
9548	Top Edge Abutment Ventilation Pack
9596	GRP Secret Gutter
9578	Bonding Gutter High Profile
9580	Bonding Gutter Low Profile
7146	Universal Angle Ridge
7518	Universal Angle Block-End Ridge
9059	DryVent Ridge Pack (Universal Angle)
9308	Rapid Vented Ridge (Universal Angle)
9773	Ridge End Cap Universal Angle
7148	Universal Angle Monoridge
7297	Universal Angle Block-End Monoridge Left-Hand
7298	Universal Angle Block-End Monoridge Right-Hand
9084	DryVent Monoridge Pack
7254	Universal Angle Ridge Vent Terminal
7242	Universal Angle Gas Flue Ridge Terminal
9141	RedLine Ventilation Tile (inc. Underlay Seal)
7943	8.8k ThruVent Tile (inc. Underlay Seal)
9294	Tile Clip (Pack of 100, +100 nails)
9481	Verge Clip
9293	Eaves Clip
9334	45 x 3mm Aluminium Alloy Nails (for Tiles)
9350	45 x 3.35mm Stainless Steel ARS Nails (for Tiles)
9338	50 x 3.35mm Aluminium Alloy Nails (for Eaves Clips)
9259	Richmond 10 Outlet Base

* All weights nominal

#(S/S) Stainless Steel Annular Ring Shanked

(A/A) Aluminium Alloy

MOCKBOND RICHMOND 10

Size (overall)	418 x 330mm	
Minimum Pitch and Headlap	17.5° at 100mm headlap	
	27.5° at 75mm headlap	
(The minimum pitch is based on a maximum rafter length of 10 metres. For rafter lengths greater than this, please contact the Technical Solutions Hotline on 08708 702595)		
Maximum Pitch	90°	
(subject to fixing specification)		
Maximum Headlap	125mm	
Minimum Gauge/Batten Spacing	293mm	
Maximum Gauge/Batten Spacing	below 27.5° 318mm	
	27.5° and over 343mm	
Hanging Length (approx.)	395mm	
Cover (all figures are net and do not allow for wastage)		
Linear cover of 1 slate	300mm	
Covering capacity at max gauge	9.7 slates/m^2	
Weight (at max. gauge approx.)*	45kg/m^2	
per pallet, including pallet (approx.)	1.05 tonnes	
Battens Required (at max. gauge)	2.92m/m^2	
Batten Size		
Rafter centres up to 450mm	38 x 25mm	
Rafter centres up to 600mm	50 x 25mm	
Fixing Clips	Eaves, Verge & Slate Clips	
Nail Size for Slates#	45 x 3mm (A/A)	45 x 3.35mm (S/S)
Number of Slates/Pallet	216	

Colour 30 38 40 63

www.redland.co.uk/mockbondrichmond

4881	Richmond 10 MockBond Slates
4872	Half Slate Pairs
9603	Dry Verge LH (Pack of 10)
9604	Dry Verge RH (Pack of 10)
9605	Dry Verge Eaves/Ridge Pack
7777	Universal Angle Hip
7778	Universal Angle Hip with Nail Holes
7779	Universal Angle Block-End Hip
9047	Dry Hip Pack
9524	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9520	Universal Angle Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9575	Dry Valley Low Profile
7175	Universal Valley Trough Tile
9548	Top Edge Abutment Ventilation Pack
9596	GRP Secret Gutter
9578	Bonding Gutter High Profile
9580	Bonding Gutter Low Profile
7146	Universal Angle Ridge
7518	Universal Angle Block-End Ridge
9059	DryVent Ridge Pack (Universal Angle)
9308	Rapid Vented Ridge (Universal Angle)
9773	Ridge End Cap Universal Angle
7148	Universal Angle Monoridge
7297	Universal Angle Block-End Monoridge Left-Hand
7298	Universal Angle Block-End Monoridge Right-Hand
9084	DryVent Monoridge Pack
7254	Universal Angle Ridge Vent Terminal
7242	Universal Angle Gas Flue Ridge Terminal
9141	RedLine Ventilation Tile (inc. Underlay Seal)
7943	8.8k ThruVent Tile (inc. Underlay Seal)
9294	Tile Clip (Pack of 100, +100 nails)
9481	Verge Clip
9293	Eaves Clip
9334	45 x 3mm Aluminium Alloy Nails (for Tiles)
9350	45 x 3.35mm Stainless Steel ARS Nails (for Tiles)
9338	50 x 3.35mm Aluminium Alloy Nails (for Eaves Clips)
9259	Richmond 10 Outlet Base

* All weights nominal

#(S/S) Stainless Steel Annular Ring Shanked

(A/A) Aluminium Alloy

STONEWOLD II

Size (overall)	430 x 380mm
Minimum Pitch and Headlap	17.5° at 75mm headlap
(The minimum pitch is based on a maximum rafter length of 10 metres. For rafter lengths greater than this, please contact the Technical Solutions Hotline on 08708 702595)	
Maximum Pitch	44°
(subject to fixing specification)	
Maximum Headlap	125mm
Minimum Gauge/Batten Spacing	305mm
Maximum Gauge/Batten Spacing	355mm
Hanging Length (approx.)	379mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 slate	343mm
Covering capacity at max gauge	8.2 slates/m^2
Weight (at max. gauge approx.)*	49kg/m^2
per pallet, including pallet (approx.)	0.84 tonnes
Battens Required (at max. gauge)	2.82m/m^2
Batten Size	
Rafter centres up to 450mm	38 x 25mm
Rafter centres up to 600mm	50 x 25mm
Fixing Clips	Eaves, Verge, Slate & Double Battening Clips
Number of Slates/Pallet	132
Colour	30 34 36

www.redland.co.uk/stonewold

4161	Stonewold II Slates
4164	Half Slate Pairs
9576	Ambi-Dry Verge (Pack of 10)
9495	Ambi-Dry Eaves/Ridge Pack
7777	Universal Angle Hip
7778	Universal Angle Hip with Nail Holes
7779	Universal Angle Block-End Hip
9046	Dry Hip Pack
9028	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9520	Universal Angle Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9575	Dry Valley Low Profile
7175	Universal Valley Trough Tile
9548	Top Edge Abutment Ventilation Pack
9596	GRP Secret Gutter
9578	Bonding Gutter High Profile
9580	Bonding Gutter Low Profile
7146	Universal Angle Ridge
7518	Universal Angle Block-End Ridge
9059	DryVent Ridge Pack (Universal Angle)
9308	Rapid Vented Ridge (Universal Angle)
9773	Ridge End Cap Universal Angle
7148	Universal Angle Monoridge
7297	Universal Angle Block-End Monoridge Left-Hand
7298	Universal Angle Block-End Monoridge Right-Hand
9084	DryVent Monoridge Pack
7254	Universal Angle Ridge Vent Terminal
7242	Universal Angle Gas Flue Ridge Terminal
7934	8.8k ThruVent Tile (inc. Underlay Seal)
9240	Slate Clip
9297	Verge Clip
9296	Eaves Clip
9338	50 x 3.35mm Aluminium Alloy Nails (for Eaves Clips)
9204	Double Battening Clip
9253	Stonewold II Outlet Base

* All weights nominal

MINI STONEWOLD

Size (overall)	418 x 334mm
Minimum Pitch and Headlap	17.5° at 100mm headlap
	22.5° at 75mm headlap
(The minimum pitch is based on a maximum rafter length of 10 metres. For rafter lengths greater than this, please contact the Technical Solutions Hotline on 08708 702595)	
Maximum Pitch	90°
(subject to fixing specification)	
Maximum Headlap	125mm
Minimum Gauge/Batten Spacing	293mm
Maximum Gauge/Batten Spacing	below 22.5° 318mm
	22.5° and over 343mm
Hanging Length (approx.)	397mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 slate	294mm
Covering capacity at max gauge	9.9 slates/m^2
Weight (at max. gauge approx.)*	50kg/m^2
per pallet, including pallet (approx.)	1.16 tonnes
Battens Required (at max. gauge)	2.92m/m^2
Batten Size	
Rafter centres up to 450mm	38 x 25mm
Rafter centres up to 600mm	50 x 25mm
Fixing Clips	Eaves, Verge, Valley & Slate Clips
Nail Size for Slates#	50 x 3.35mm (A/A)
Number of Slates/Pallet	216
Colour	30 34 36 39 52 53 63 77

www.redland.co.uk/ministonewold

4261	Mini Stonewold Slates
4263	Half Slate Pairs
9550	Ambi-Dry Verge (Pack of 10)
9552	Ambi-Dry Eaves/Ridge Pack
9601	Rapid Verge (Pack of 10)
9602	Rapid Verge Eaves/Ridge Pack
7777	Universal Angle Hip
7778	Universal Angle Hip with Nail Holes
7779	Universal Angle Block-End Hip
9046	Dry Hip Pack
9028	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9520	Universal Angle Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9575	Dry Valley Low Profile
7175	Universal Valley Trough Tile
9548	Top Edge Abutment Ventilation Pack
9596	GRP Secret Gutter
9578	Bonding Gutter High Profile
9580	Bonding Gutter Low Profile
7146	Universal Angle Ridge
7518	Universal Angle Block-End Ridge
7151	Hi-Pitch Universal Angle Ridge (335mm long)
9059	DryVent Ridge Pack (Universal Angle)
9308	Rapid Vented Ridge (Universal Angle)
9773	Ridge End Cap Universal Angle
7148	Universal Angle Monoridge
7297	Universal Angle Block-End Monoridge Left-Hand
7298	Universal Angle Block-End Monoridge Right-Hand
9084	DryVent Monoridge Pack
7254	Universal Angle Ridge Vent Terminal
7242	Universal Angle Gas Flue Ridge Terminal
9118	RedLine Ventilation Tile (inc. Underlay Seal)
7935	8.8k ThruVent Tile (inc. Underlay Seal)
9124	Rapid RoofVent (inc. Underlay Seal)
9185	Tile Clip
9530	Storm Clip (Pack of 100, + 100 Nails)
9529	Verge Clip (Pack of 25)
9527	Eaves Clip (Pack of 25)
9338	50 x 3.35mm Aluminium Alloy Nails (for Eaves Clips)
9255	Mini Stonewold Outlet Base

* All weights nominal
#(A/A) Aluminium Alloy

MOCKBOND MINI STONEWOLD

Size (overall)	418 x 334mm
Minimum Pitch and Headlap	17.5° at 100mm headlap
	22.5° at 75mm headlap
(The minimum pitch is based on a maximum rafter length of 10 metres. For rafter lengths greater than this, please contact the Technical Solutions Hotline on 08708 702595)	
Maximum Pitch	90°
(subject to fixing specification)	
Maximum Headlap	125mm
Minimum Gauge/Batten Spacing	293mm
Maximum Gauge/Batten Spacing	below 22.5° 318mm
	22.5° and over 343mm
Hanging Length (approx.)	397mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 slate	294mm
Covering capacity at max gauge	9.9 slates/m^2
Weight (at max. gauge approx.)*	50kg/m^2
per pallet, including pallet (approx.)	1.16 tonnes
Battens Required (at max. gauge)	2.92m/m^2
Batten Size	
Rafter centres up to 450mm	38 x 25mm
Rafter centres up to 600mm	50 x 25mm
Fixing Clips	Eaves, Verge, Valley & Slate Clips
Nail Size for Slates#	50 x 3.35mm (A/A)
Number of Slates/Pallet	216
Colour	30 34 39 52 77

www.redland.co.uk/mockbondmini

4271	MockBond Mini Stonewold Slates
4263	Half Slate Pairs
9550	Ambi-Dry Verge (Pack of 10)
9552	Ambi-Dry Eaves/Ridge Pack
9601	Rapid Verge (Pack of 10)
9602	Rapid Verge Eaves/Ridge Pack
7777	Universal Angle Hip
7778	Universal Angle Hip with Nail Holes
7779	Universal Angle Block-End Hip
9046	Dry Hip Pack
9028	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9520	Universal Angle Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9575	Dry Valley Low Profile
7175	Universal Valley Trough Tile
9548	Top Edge Abutment Ventilation Pack
9596	GRP Secret Gutter
9578	Bonding Gutter High Profile
9580	Bonding Gutter Low Profile
7146	Universal Angle Ridge
7518	Universal Angle Block-End Ridge
7151	Hi-Pitch Universal Angle Ridge (335mm long)
9059	DryVent Ridge Pack (Universal Angle)
9308	Rapid Vented Ridge (Universal Angle)
9773	Ridge End Cap Universal Angle
7148	Universal Angle Monoridge
7297	Universal Angle Block-End Monoridge Left-Hand
7298	Universal Angle Block-End Monoridge Right-Hand
9084	DryVent Monoridge Pack
7254	Universal Angle Ridge Vent Terminal
7242	Universal Angle Gas Flue Ridge Terminal
9118	RedLine Ventilation Tile (inc. Underlay Seal)
7935	8.8k ThruVent Tile (inc. Underlay Seal)
9124	Rapid RoofVent (inc. Underlay Seal)
9185	Tile Clip
9530	Storm Clip (Pack of 100, + 100 Nails)
9529	Verge Clip (Pack of 25)
9527	Eaves Clip (Pack of 25)
9338	50 x 3.35mm Aluminium Alloy Nails (for Eaves Clips)
9255	Mini Stonewold Outlet Base

* All weights nominal
#(A/A) Aluminium Alloy

NATURAL SLATE

Size (overall)	500 x 250mm
Minimum Pitch and Headlap	25° (Moderate Exposure) 27.5° (Severe Exposure)
(Redland Del Carmen Slate® are supplied pre-holed with a gauge of 195mm).	
Maximum Pitch	90°
Cover (all figures are net and do not allow for wastage)	
Covering capacity at 110mm headlap*	20.5 slates/m^2
Weight Single slate	1.9kg/m^2
per m^2 at 110mm headlap	35.7kg/m^2
Batten Size	
Rafter centres up to 600mm	50 x 25mm
Nail Size for Slates	30 x 3mm Smooth copper nails
Number of Slates/Crate	740 (Approx)
Colour	01

www.redland.co.uk/naturalslate

1811	Del Carmen Ultra 500 x 250 Std Thickness Slates (pre-holed)
1821	Del Carmen Ultra 500 x 375 Std Thickness Slate-and-a-Halves
9412	Natural Slate Continuous Dry Verge
7777	Universal Angle Hip
7778	Universal Angle Hip with Nail Holes
7779	Universal Angle Block-End Hip
9048	Dry Hip Pack
9503	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9520	Universal Angle Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9413	Natural Slate GRP Valley
9575	Dry Valley Low Profile
9548	Top Edge Abutment Ventilation Pack
9596	GRP Secret Gutter
9578	Bonding Gutter High Profile
9580	Bonding Gutter Low Profile
7146	Universal Angle Ridge
7518	Universal Angle Block-End Ridge
7151	Hi-Pitch Universal Angle Ridge (335mm long)
9059	DryVent Ridge Pack (Universal Angle)
9308	Rapid Vented Ridge (Universal Angle)
9773	Ridge End Cap Universal Angle
7148	Universal Angle Monoridge
7297	Universal Angle Block-End Monoridge Left-Hand
7298	Universal Angle Block-End Monoridge Right-Hand
9084	DryVent Monoridge Pack
7254	Universal Angle Ridge Vent Terminal
7242	Universal Angle Gas Flue Ridge Terminal
9414	Natural Slate Standard Vent Tile
9416	Natural Slate Hi-Capacity Vent Tile
9417	30 x 3mm Smooth Copper Nails

* All weights nominal

Plain Tile Range

With Redland Plain Tiles, you can install a beautiful looking roof that will match almost any vernacular, wherever you are in the country. They're easy to install and work with too, and last a lifetime.

ROSEMARY CLAY CRAFTSMAN

Size (overall)	265 x 165mm
Minimum Pitch	35°
Maximum Pitch	90°
(subject to fixing specification)	
Minimum Headlap	below 90° 65mm
	at 90° 35mm
Maximum Headlap	88mm
Minimum Gauge/Batten Spacing	88mm
Maximum Gauge/Batten Spacing	below 90° 100mm
	at 90° 115mm
Hanging Length (approx.)	255mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 tile	165mm
Covering capacity	below 90° 60 tiles/m^2
	at 90° 52 tiles/m^2
Weight (approx.)*	below 90° 78kg/m^2
	at 90° 68kg/m^2
per pallet, including pallet (approx.)	1.11 tonnes
Battens Required (at max. gauge)	below 90° 10.0m/m^2
	at 90° 8.7m/m^2
Batten Size	
Rafter centres up to 600mm	38 x 25mm
Nail Size for Tiles#	40 x 2.65mm (A/A)
Number of Tiles/Pallet	720
Colour	84 85

www.redland.co.uk/craftsman

6921	Rosemary Clay Craftsman Plain Tiles
6924	Eaves/Top Tiles
6929	Tile-and-a-Halves
6521	Club Tiles
8441	Left-Hand 90° External Angle
8440	Right-Hand 90° External Angle
8443	Left-Hand 90° Internal Angle
8442	Right-Hand 90° Internal Angle
8430	Universal Bonnet Hip (35° - 50°)
8454	Third Round Hip (300mm long)
8482	Baby Ridge
9047	Dry Hip Pack
9524	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9520	Universal Angle Ridge/Hip Junction
9258	Hip Iron
9069	Rapid Hip Support Tray
8431	Valley Tile (35° - 37.5°)
8437	Valley Tile (40° - 50°)
9595	125 GRP Valley
9574	Dry Valley High Profile
9548	Top Edge Abutment Ventilation Pack
9578	Bonding Gutter High Profile
8450	Half Round Ridge (300mm long)
9056	DryVent Ridge Pack
9772	Ridge End Cap Half Round
8486	Half Round Ridge Vent Terminal (450mm long)
9119	RedLine Ventilation Tile (inc. Underlay Seal)
9331	40 x 2.65mm Aluminium Alloy Nails (for Tiles)

* All weights nominal
#(A/A) Aluminium Alloy

ROSEMARY CLAY CLASSIC

Size (overall)	265 x 165mm
Minimum Pitch	35°
Maximum Pitch	90°
(subject to fixing specification)	
Minimum Headlap	below 90° 65mm
	at 90° 35mm
Maximum Headlap	88mm
Minimum Gauge/Batten Spacing	88mm
Maximum Gauge/Batten Spacing	below 90° 100mm
	at 90° 115mm
Hanging Length (approx.)	255mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 tile	165mm
Covering capacity	below 90° 60 tiles/m^2
	at 90° 52 tiles/m^2
Weight (approx.)*	below 90° 78kg/m^2
	at 90° 68kg/m^2
per pallet, including pallet (approx.)	1.11 tonnes
Battens Required (at max. gauge)	below 90° 10.0m/m^2
Batten Size	
Rafter centres up to 600mm	38 x 25mm
Nail Size for Tiles#	40 x 2.65mm (A/A)
Number of Tiles/Pallet	840

Colour 80 81 82 83 87 91 92 94 95

www.redland.co.uk/rosemaryclassic

6501	Rosemary Clay Classic Plain Tiles
6504	Eaves/Top Tiles
6509	Tile-and-a-Halves
6521	Club Tiles
8441	Left-Hand 90° External Angle
8440	Right-Hand 90° External Angle
8443	Left-Hand 90° Internal Angle
8442	Right-Hand 90° Internal Angle
8430	Universal Bonnet Hip (35° - 50°)
8411	Arris Hip (35°)
8412	Arris Hip (40°)
8413	Arris Hip (45°)
8414	Arris Hip (50°)
8454	Third Round Hip (300mm long)
8482	Baby Ridge
9047	Dry Hip Pack
9524	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9520	Universal Angle Ridge/Hip Junction
9258	Hip Iron
9069	Rapid Hip Support Tray (1.2m)
8431	Valley Tile (35° - 37.5°)
8437	Valley Tile (40° - 50°)
9595	125 GRP Valley
9574	Dry Valley High Profile
9548	Top Edge Abutment Ventilation Pack
9578	Bonding Gutter High Profile
8450	Half Round Ridge (300mm long)
9056	DryVent Ridge Pack
9772	Ridge End Cap Half Round
8486	Half Round Ridge Vent Terminal (450mm long)
9119	RedLine Ventilation Tile (inc. Underlay Seal)
9331	40 x 2.65mm Aluminium Alloy Nails (for Tiles)

* All weights nominal
#(A/A) Aluminium Alloy

HEATHLAND

Size (overall)*	263 x 165mm
Minimum Pitch	35°
Maximum Pitch	90°
(subject to fixing specification)	
Minimum Headlap	below 90° 65mm
	at 90° 35mm
Maximum Headlap	88mm
Minimum Gauge/Batten Spacing	88mm
Maximum Gauge/Batten Spacing	below 90° 100mm
	at 90° 115mm
Hanging Length (approx.)*	243mm
Cover (all figures are net and do not allow for wastage)*	
Linear cover of 1 tile	165mm
Covering capacity	below 90° 60 tiles/m^2
	at 90° 52 tiles/m^2
Weight (approx.)*	below 90° 75kg/m^2
	at 90° 65kg/m^2
per pallet, including pallet (approx.)	1.01 tonnes
Battens Required (at max. gauge)	below 90° 10.0m/m^2
Batten Size	
Rafter centres up to 600mm	38 x 25mm
Fixing Clips	Top Tile Clips
Nail Size for Tiles#	40 x 2.65mm (A/A)
Number of Tiles/Pallet	768

Colour 20 22 23 25 26

* Variation in hanging length and linear cover is a purpose designed feature of this tile and therefore the relevant clauses of BS : EN 490 do not apply.

www.redland.co.uk/heathland

6661	Heathland Tiles
6664	Eaves/Top Tiles
6669	Tile-and-a-Halves
6671	Club Tiles
7673	Left-Hand 90° External Angle
7674	Right-Hand 90° External Angle
7671	Universal Bonnet Hip (35° - 50°)
7675	Baby Ridge
9047	Dry Hip Pack
9524	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9520	Universal Angle Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
7672	Universal Valley Tile (35° - 50°)
9595	125 GRP Valley
9574	Dry Valley High Profile
9548	Top Edge Abutment Ventilation Pack
9578	Bonding Gutter High Profile
7690	Half Round Ridge (450mm long)
9058	DryVent Ridge Pack (Half Round)
9302	Rapid Vented Ridge (Half Round)
9772	Ridge End Cap Half Round
7683	Half Round Monoridge (450mm long)
9084	DryVent Monoridge Pack
7678	Half Round Ridge Vent Terminal (450mm long)
9119	RedLine Ventilation Tile (inc. Underlay Seal)
9282	Top Tile Clip
9331	40 x 2.65mm Aluminium Alloy Nails (for Tiles)

* All weights nominal
#(A/A) Aluminium Alloy

PLAIN TILE

Size (overall)	266 x 165mm
Minimum Pitch	35°
Maximum Pitch	90°
(subject to fixing specification)	
Minimum Headlap	below 90° 65mm
	at 90° 35mm
Maximum Headlap	88mm
Minimum Gauge/Batten Spacing	88mm
Maximum Gauge/Batten Spacing	below 90° 100mm
	at 90° 115mm
Hanging Length (approx.)	246mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 tile	165mm
Covering capacity	below 90° 60 tiles/m^2
	at 90° 52 tiles/m^2
Weight (approx.)*	below 90° 75kg/m^2
	at 90° 65kg/m^2
per pallet, including pallet (approx.)	1.01 tonnes
Battens Required (at max. gauge)	below 90° 10.0m/m^2
Batten Size	
Rafter centres up to 600mm	38 x 25mm
Fixing Clips	Top Tile Clips
Nail Size for Tiles#	40 x 2.65mm (A/A)
Number of Tiles/Pallet	768

Colour 02 03 12 18 27 30 34 36 39 52 53 63 78

www.redland.co.uk/plaintile

6151	Plain Tiles
6154	Eaves/Top Tiles
6159	Tile-and-a-Halves
6251	Club Tiles
8134	Left-Hand 90° External Angle
8135	Right-Hand 90° External Angle
7142	Left-Hand 135° External Angle
7143	Right-Hand 135° External Angle
8125	Universal Bonnet Hip (35° - 50°)
8122	Third Round Hip
7411	Third Round Hip with Nail Holes
7784	Third Round Block-End Hip
7107	Baby Ridge
7126	Pascal Roll
9047	Dry Hip Pack
9524	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9521	Third Round Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
8133	Universal Valley Tile (35° - 50°)
9574	Dry Valley High Profile
9595	125 GRP Valley
9548	Top Edge Abutment Ventilation Pack
9578	Bonding Gutter High Profile
8101	Half Round Ridge
9058	DryVent Ridge Pack (Half Round)
9302	Rapid Vented Ridge (Half Round)
9772	Ridge End Cap Half Round
7203	Half Round Monoridge
9084	DryVent Monoridge Pack
7253	Half Round Ridge Vent Terminal
7241	Half Round Gas Flue Ridge Terminal
9119	RedLine Ventilation Tile (inc. Underlay Seal)
9128	Rapid Roof Vent (inc. Underlay Seal)
7347	4.5k ThruVent Tile (inc. Underlay Seal)
9282	Top Tile Clip
9331	40 x 2.65mm Aluminium Alloy Nails (for Tiles)

* All weights nominal
#(A/A) Aluminium Alloy

DUOPLAIN

Size (overall)	268 x 330mm
Minimum Pitch (The minimum pitch is based on a maximum rafter length of 10 metres. For rafter lengths greater than this, please contact the Technical Solutions Hotline on 08708 702595)	25°
Maximum Pitch (subject to fixing specification)	90°
Minimum Headlap	80mm
Maximum Headlap	95mm
Minimum Gauge/Batten Spacing	173mm
Maximum Gauge/Batten Spacing	188mm
Hanging Length (approx.)	245mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 tile	300mm
Covering capacity at max. gauge	17.7 tiles/m^2
Weight (approx.)*	at max. gauge 55kg/m^2
per pallet, including pallet (approx.)	0.91 tonnes
Battens Required (at max. gauge)	5.26m/m^2
Batten Size	
Rafter centres up to 450mm	38 x 25mm
Rafter centres up to 600mm	50 x 25mm
Nail Size for Tiles#	45 x 3mm (A/A) or 45 x 3.35mm (S/S) Depending on fixing specification
Number of Tiles/Pallet	288
Colour	11 38 40 45 77 78

www.redland.co.uk/duoplain

6101	DuoPlain Tiles
6105	Half Tiles
6103	Left-Hand Verge Three Quarter Tiles
6104	Right-Hand Verge Three Quarter Tiles
9660	Ambi-Dry Verge (Pack of 10)
9680	Ambi-Dry Eaves/Ridge Pack
8212	Third Round Hip
8211	Third Round Hip with Nail Holes
7404	Third Round Hip Block-End
7408	Baby Ridge
9534	Dry Hip Pack
9562	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9521	Third Round Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9575	Dry Valley Low Profile
9548	Top Edge Abutment Ventilation Pack
9596	GRP Secret Gutter
9578	Bonding Gutter High Profile
9580	Bonding Gutter Low Profile
8201	Half Round Ridge
7409	Half Round Block-End Ridge
9058	DryVent Ridge Pack (Half Round)
9302	Rapid Vented Ridge (Half Round)
9772	Ridge End Cap Half Round
7403	Half Round Monoridge
7406	Half Round Block-End Monoridge Left-Hand
7407	Half Round Block-End Monoridge Right-Hand
9084	DryVent Monoridge Pack
7402	Half Round Ridge Vent Terminal
9113	RedLine Ventilation Tile (inc. Underlay Seal & Vent Adaptor)
9334	45 x 3mm Aluminium Alloy Nails (for Tiles)
9350	45 x 3.35mm Stainless Steel ARS Nails (for Tiles)
9104	38 x 4.2mm Stainless Steel Screws (for Tiles)

* All weights nominal
#(A/A) Aluminium Alloy
(S/S) Stainless Steel Annular Ring Shank

FONTENELLE INTERLOCKING CLAY PLAIN TILE

Size (overall)	350 x 244mm
Minimum Pitch	20°
The minimum pitch is 15° in certain circumstances. The minimum pitch is based on a maximum rafter length of 10 metres. For rafter lengths greater than this, please contact the Technical Solutions Hotline on 08708 702595)	
Maximum Pitch	90°
(subject to fixing specification)	
Minimum Headlap	95mm
Maximum Headlap	115mm
Minimum Gauge/Batten Spacing	235mm
Maximum Gauge/Batten Spacing	255mm
Hanging Length (approx.)	321mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 tile	200mm
Covering capacity at max. gauge	19.6 tiles/m^2
Weight (approx.)* at max. gauge	52kg/m^2
per pallet, including pallet (approx.)	1.13 tonnes
Battens Required (at max. gauge)	3.92m/m^2
Batten Size	
Rafter centres up to 450mm	38 x 25mm
Rafter centres up to 600mm	50 x 25mm
Nail Size for Tiles#	45 x 3mm (A/A) or 55 x 2.65mm (S/S) Depending on fixing specification
Number of Tiles/Pallet	420
Colour	79 80 82

www.redland.co.uk/fontenelle

5961	Fontenelle Clay Tiles
5962	Tile-and-a-Half
5963	Left Hand Verge Tiles
5964	Left Hand Verge Tile-and-a-Halves
8454	Third Round Hip (300mm long)
8312	Third Round Hip (Concrete)
8122	Third Round Hip (Concrete)
8311	Third Round Hip with Nail Holes (Concrete)
7411	Third Round Hip with Nail Holes (Concrete)
8317	Third Round Block-End Hip (Concrete)
7784	Third Round Block-End Hip (Concrete)
9313	Uni-Vent Rapid Ridge/Hip
9521	Third Round Ridge/Hip Junction
9258	Hip Iron
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9575	Dry Valley Low Profile
9548	Top Edge Abutment Ventilation Pack
9596	GRP Secret Gutter
9578	Bonding Gutter High Profile
9580	Bonding Gutter Low Profile
8450	Half Round Ridge (300mm long)
8302	Half Round Ridge (Concrete)
8101	Half Round Ridge (Concrete)
9058	DryVent Ridge Pack (Concrete Ridge Tiles)
9056	DryVent Ridge Pack (Clay Ridge Tiles)
9772	Ridge End Cap Half Round
8304	Half Round Monoridge (Concrete)
7203	Half Round Monoridge (Concrete)
9084	DryVent Monoridge Pack
8486	Half Round Ridge Vent Terminal (450mm long)
8310	Half Round Ridge Vent Terminal (Concrete)
7253	Half Round Ridge Vent Terminal
7840	4.5k ThruVent Tile (inc. Underlay Seal)
9638	55 x 2.65mm Stainless Steel ARS Nails (for Tiles)
9366	50 x 4.2mm Stainless Steel Screws (for Tiles)

* All weights nominal
#(A/A) Aluminium Alloy
(S/S) Stainless Steel Annular Ring Shank

Profile Tile Range

Pantile or profile roof tiles from Redland bring an added dimension to your roofing, with attractive colours and interlocks that make them quick and easy to install, while giving any roof a warm, striking look.

LANDMARK DOUBLE PANTILE

Size (overall)	418 x 332mm
Minimum Pitch and Headlap	15° at 100mm headlap
	17.5° at 75mm headlap
Maximum Pitch	90°
(subject to fixing specification)	
Maximum Headlap	125mm
Minimum Gauge/Batten Spacing	293mm
Maximum Gauge/Batten Spacing	below 17.5° 318mm
	17.5° and over 343mm
Hanging Length (approx.)	397mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 tile	300mm
Covering capacity at max gauge	9.7 tiles/m^2
Weight (at max. gauge approx.)*	47kg/m^2
per pallet, including pallet (approx.)	1.02 tonnes
Battens Required (at max. gauge)	2.92m/m^2
Batten Size	
Rafter centres up to 450mm	38 x 25mm
Rafter centres up to 600mm	50 x 25mm
Fixing Clips	Eaves, Verge & Tile Clips
Nail Size for Tiles#	70 x 3.75mm (A/A)
Number of Tiles/Pallet	210
Colour	43 44

www.redland.co.uk/landmarkpantile

5901	Landmark Double Pantiles
8331	Half Tiles
9965	Eaves Comb
9550	Ambi-Dry Verge (Pack of 10)
9552	Ambi-Dry Eaves/Ridge Pack
8333	Left-Hand Cloaked Verge Tiles
8334	Right-Hand Cloaked Verge Tiles
9601	Rapid Verge (Pack of 10)
9602	Rapid Verge Eaves/Ridge Pack
8312	Third Round Hip
8311	Third Round Hip with Nail Holes
8317	Third Round Block-End Hip
9046	Dry Hip Pack
9028	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9521	Third Round Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9574	Dry Valley High Profile
7175	Universal Valley Trough Tile
9541	Top Edge Abutment Ventilation Pack
9578	Bonding Gutter High Profile
8302	Half Round Ridge
8303	Half Round Block-End Ridge
9094	DryVent Ridge Pack
9304	Rapid Vented Ridge
9772	Ridge End Cap Half Round
8304	Half Round Monoridge
8305	Half Round Block-End Monoridge Left-Hand
8306	Half Round Block-End Monoridge Right-Hand
9080	DryVent Monoridge Pack
8310	Half Round Ridge Vent Terminal
9114	RedLine Ventilation Tile (inc. Underlay Seal)
7938	8.8k ThruVent Tile (inc. Underlay Seal)
9246	Tile Clip
9298	Verge Clip Right-Hand
9121	Verge Clip Left-Hand
9287	Eaves Clip (inc Nail)
9333	60 x 3.35mm Aluminium Alloy Nails (for Tile Clips)
9336	70 x 3.75mm Aluminium Alloy Nails (for Tiles)
7173	Dentil Slips - Width 53mm
9256	Landmark Double Pantile Outlet Base

* All weights nominal
#(A/A) Aluminium Alloy

LANDMARK DOUBLE ROMAN

Size (overall)	418 x 330mm
Minimum Pitch and Headlap	17.5° at 100mm headlap
	22.5° at 75mm headlap
Maximum Pitch	90°
(subject to fixing specification)	
Maximum Headlap	125mm
Minimum Gauge/Batten Spacing	293mm
Maximum Gauge/Batten Spacing	below 22.5° 318mm
	22.5° and over 343mm
Hanging Length (approx.)	397mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 tile	300mm
Covering capacity at max gauge	9.7 tiles/m^2
Weight (at max. gauge approx.)*	42kg/m^2
per pallet, including pallet (approx.)	1.05 tonnes
Battens Required (at max. gauge)	2.92m/m^2
Batten Size	
Rafter centres up to 450mm	38 x 25mm
Rafter centres up to 600mm	50 x 25mm
Fixing Clips	Eaves, Verge & Tile Clips
Nail Size for Tiles#	60 x 3.35mm (A/A)
Number of Tiles/Pallet	240
Colour	43 44

www.redland.co.uk/landmarkroman

5201	Landmark Double Roman Tiles
8341	Half Tiles
9550	Ambi-Dry Verge (Pack of 10)
9552	Ambi-Dry Eaves/Ridge Pack
8343	Left-Hand Cloaked Verge Tiles
8344	Right-Hand Cloaked Verge Tiles
9601	Rapid Verge (Pack of 10)
9602	Rapid Verge Eaves/Ridge Pack
8312	Third Round Hip
8311	Third Round Hip with Nail Holes
8317	Third Round Block-End Hip
9046	Dry Hip Pack
9028	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9521	Third Round Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9574	Dry Valley High Profile
7175	Universal Valley Trough Tile
9543	Top Edge Abutment Ventilation Pack
9578	Bonding Gutter High Profile
8302	Half Round Ridge
8303	Half Round Block-End Ridge
9095	DryVent Ridge Pack
9304	Rapid Vented Ridge
9772	Ridge End Cap Half Round
8304	Half Round Monoridge
8305	Half Round Block-End Monoridge Left-Hand
8306	Half Round Block-End Monoridge Right-Hand
9082	DryVent Monoridge Pack
8310	Half Round Ridge Vent Terminal
9117	RedLine Ventilation Tile (inc. Underlay Seal)
7939	8.8k ThruVent Tile (inc. Underlay Seal)
9288	Tile Clip
9121	Verge Clip Right-Hand
9297	Verge Clip Left-Hand
9287	Eaves Clip (inc Nail)
9333	60 x 3.35mm Aluminium Alloy Nails (for Tiles & Tile Clips)
7172	Dentil Slips - Width 81mm
9257	Landmark Double Roman Outlet Base

* All weights nominal
#(A/A) Aluminium Alloy

GROVEBURY

Size (overall)		418 x 332mm
Minimum Pitch and Headlap		
	Through Coloured	15° at 100mm headlap
		17.5° at 75mm headlap
	Granular	22.5° at 100mm headlap
		30° at 75mm headlap
Maximum Pitch		90°
(subject to fixing specification)		
Maximum Headlap		125mm
Minimum Gauge/Batten Spacing		293mm
Maximum Gauge/Batten Spacing		below 17.5° 318mm
		17.5° and over 343mm
Hanging Length (approx.)		394mm
Cover (all figures are net and do not allow for wastage)		
Linear cover of 1 tile		300mm
Covering capacity at max gauge		9.7 tiles/m^2
Weight (at max. gauge approx.)*		46kg/m^2
per pallet, including pallet (approx.)		1.07 tonnes
Battens Required (at max. gauge)		2.92m/m^2
Batten Size		
Rafter centres up to 450mm		38 x 25mm
Rafter centres up to 600mm		50 x 25mm
Fixing Clips		Eaves, Verge & Tile Clips
Nail Size for Tiles#		70 x 3.75mm (A/A)
Number of Tiles/Pallet		216
Colour		02 03 30 34 36 39 52 53 77 78

www.redland.co.uk/grovebury

5741	Grovebury Tiles
7770	Half Tile
9965	Eaves Comb
9550	Ambi-Dry Verge (Pack of 10)
9552	Ambi-Dry Eaves/Ridge Pack
7273	Left-Hand Cloaked Verge Tile
7274	Right-Hand Cloaked Verge Tile
9601	Rapid Verge (Pack of 10)
9602	Rapid Verge Eaves/Ridge Pack
8122	Third Round Hip
7411	Third Round Hip with Nail Holes
7784	Third Round Block-End Hip
9046	Dry Hip Pack
9028	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9521	Third Round Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9574	Dry Valley High Profile
7175	Universal Valley Trough Tile
9541	Top Edge Abutment Ventilation Pack
9578	Bonding Gutter High Profile
8101	Half Round Ridge
7519	Half Round Block-End Ridge
9094	DryVent Ridge Pack
9304	Rapid Vented Ridge
9772	Ridge End Cap Half Round
7203	Half Round Monoridge
7266	Half Round Block-End Monoridge Left-Hand
7267	Half Round Block-End Monoridge Right-Hand
9080	DryVent Monoridge Pack
7253	Half Round Ridge Vent Terminal
7241	Half Round Gas Flue Ridge Terminal
9114	RedLine Ventilation Tile (inc. Underlay Seal)
7931	8.8k ThruVent Tile (inc. Underlay Seal)
9126	Rapid Roof Vent (inc. Underlay Seal)
9246	Tile Clip
9298	Verge Clip Right-Hand
9121	Verge Clip Left-Hand
9287	Eaves Clip (inc Nail)
9333	60 x 3.35mm Aluminium Alloy Nails (for Tile Clips)
9336	70 x 3.75mm Aluminium Alloy Nails (for Tiles)
7173	Dentil Slips - Width 53mm
9250	Grovebury Outlet Base

* All weights nominal
#(A/A) Aluminium Alloy

50 DOUBLE ROMAN

Size (overall)		418 x 330mm
Minimum Pitch and Headlap		
	Through coloured	17.5° at 100mm headlap
		22.5° at 75mm headlap
	Granular	22.5° at 100mm headlap
		30° at 75mm headlap
Maximum Pitch		90°
(subject to fixing specification)		
Maximum Headlap		125mm
Minimum Gauge/Batten Spacing		293mm
Maximum Gauge/Batten Spacing		
	Through coloured	below 22.5° 318mm
		22.5° and over 343mm
	Granular	below 30° 318mm
		30° and over 343mm
Hanging Length (approx.)		397mm
Cover (all figures are net and do not allow for wastage)		
Linear cover of 1 tile		300mm
Covering capacity at max gauge		9.7 tiles/m^2
Weight (at max. gauge approx.)*		41kg/m^2
per pallet, including pallet (approx.)		1.12 tonnes
Battens Required (at max. gauge)		2.92m/m^2
Batten Size		
Rafter centres up to 450mm		38 x 25mm
Rafter centres up to 600mm		50 x 25mm
Fixing Clips		Eaves, Verge & Tile Clips
Nail Size for Tiles#		60 x 3.35mm (A/A)
Number of Tiles/Pallet		252
Colour		02 03 12 30 34 36 39 52 53 78

2201	50 Double Roman Tiles
7730	Half Tile
9550	Ambi-Dry Verge (Pack of 10)
9552	Ambi-Dry Eaves/Ridge Pack
7275	Left-Hand Cloaked Verge Tile
7276	Right-Hand Cloaked Verge Tile
9601	Rapid Verge (Pack of 10)
9602	Rapid Verge Eaves/Ridge Pack
8122	Third Round Hip
7411	Third Round Hip with Nail Holes
7784	Third Round Block-End Hip
9046	Dry Hip Pack
9028	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9521	Third Round Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9574	Dry Valley High Profile
7175	Universal Valley Trough Tile
9543	Top Edge Abutment Ventilation Pack
9578	Bonding Gutter High Profile
8101	Half Round Ridge
7519	Half Round Block-End Ridge
9095	DryVent Ridge Pack
9304	Rapid Vented Ridge
9772	Ridge End Cap Half Round
7203	Half Round Monoridge
7266	Half Round Block-End Monoridge Left-Hand
7267	Half Round Block-End Monoridge Right-Hand
9082	DryVent Monoridge Pack
7253	Half Round Ridge Vent Terminal
7241	Half Round Gas Flue Ridge Terminal
9117	RedLine Ventilation Tile (inc. Underlay Seal)
7933	8.8k ThruVent Tile (inc. Underlay Seal)
9125	Rapid Roof Vent (inc. Underlay Seal)
9288	Tile Clip
9121	Verge Clip Right-Hand
9297	Verge Clip Left-Hand
9287	Eaves Clip (inc Nail)
9333	60 x 3.35mm Aluminium Alloy Nails (for Tile & Tile Clips)
7172	Dentil Slips - Width 81mm
9252	50 Double Roman Outlet Base

* All weights nominal
#(A/A) Aluminium Alloy

www.redland.co.uk/doubleroman

RENOWN

Size (overall)		418 x 330mm
Minimum Pitch and Headlap		
	Through coloured	17.5° at 100mm headlap
		22.5° at 75mm headlap
	Granular	22.5° at 100mm headlap
		30° at 75mm headlap
Maximum Pitch		90°
(subject to fixing specification)		
Maximum Headlap		125mm
Minimum Gauge/Batten Spacing		293mm
Maximum Gauge/Batten Spacing		
	Through coloured	below 22.5° 318mm
		22.5° and over 343mm
	Granular	below 30° 318mm
		30° and over 343mm
Hanging Length (approx.)		397mm
Cover (all figures are net and do not allow for wastage)		
Linear cover of 1 tile		300mm
Covering capacity at max gauge		9.7 tiles/m^2
Weight (at max. gauge approx.)*		41kg/m^2
per pallet, including pallet (approx.)		1.06 tonnes
Battens Required (at max. gauge)		2.92m/m^2
Batten Size		
Rafter centres up to 450mm		38 x 25mm
Rafter centres up to 600mm		50 x 25mm
Fixing Clips		Eaves, Verge & Tile Clips
Nail Size for Tiles#		50 x 3.35mm (A/A)
Number of Tiles/Pallet		240

Colour 02 03 12 30 34 36 39 52

www.redland.co.uk/renown

1501	Renown Tiles
7710	Half Tile
9550	Ambi-Dry Verge (Pack of 10)
9552	Ambi-Dry Eaves/Ridge Pack
7277	Left-Hand Cloaked Verge Tile
7278	Right-Hand Cloaked Verge Tile
9601	Rapid Verge (Pack of 10)
9602	Rapid Verge Eaves/Ridge Pack
8122	Third Round Hip
7411	Third Round Hip with Nail Holes
7784	Third Round Block-End Hip
9046	Dry Hip Pack
9028	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9521	Third Round Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9574	Dry Valley High Profile
7175	Universal Valley Trough Tile
9544	Top Edge Abutment Ventilation Pack
9578	Bonding Gutter High Profile
8101	Half Round Ridge
7519	Half Round Block-End Ridge
9097	DryVent Ridge Pack
9304	Rapid Vented Ridge
9772	Ridge End Cap Half Round
7203	Half Round Monoridge
7266	Half Round Block-End Monoridge Left-Hand
7267	Half Round Block-End Monoridge Right-Hand
9081	DryVent Monoridge Pack
7253	Half Round Ridge Vent Terminal
7241	Half Round Gas Flue Ridge Terminal
9116	RedLine Ventilation Tile (inc. Underlay Seal)
7932	8.8k ThruVent Tile (inc. Underlay Seal)
9127	Rapid Roof Vent (inc. Underlay Seal)
9185	Tile Clip
9297	Verge Clip
9186	Eaves Clip
9338	50 x 3.35mm Aluminium Alloy Nails (for Tiles & Eaves Clips)
9333	60 x 3.35mm Aluminium Alloy Nails (for Tile Clips)
9251	Renown Outlet Base

* All weights nominal
#(A/A) Aluminium Alloy

REGENT

Size (overall)		418 x 332mm
Minimum Pitch and Headlap		
	Through coloured	12.5° at 100mm headlap
		17.5° at 75mm headlap
	Granular	22.5° at 100mm headlap
		30° at 75mm headlap
Maximum Pitch		90°
(subject to fixing specification)		
Maximum Headlap		125mm
Minimum Gauge/Batten Spacing		293mm
Maximum Gauge/Batten Spacing		
	Through coloured	below 17.5° 318mm
		17.5° and over 343mm
	Granular	below 30° 318mm
		30° and over 343mm
Hanging Length (approx.)		397mm
Cover (all figures are net and do not allow for wastage)		
Linear cover of 1 tile		300mm
Covering capacity at max gauge		9.7 tiles/m^2
Weight (at max. gauge approx.)*		45kg/m^2
per pallet, including pallet (approx.)		1.22 tonnes
Battens Required (at max. gauge)		2.92m/m^2
Batten Size		
Rafter centres up to 450mm		38 x 25mm
Rafter centres up to 600mm		50 x 25mm
Fixing Clips		Eaves, Verge & Tile Clips
Nail Size for Tiles#		75 x 3.35mm (A/A)
Number of Tiles/Pallet		252
Colour		02 03 30 34 36 39 52 53 78

www.redland.co.uk/regent

3401	Regent Tiles
7750	Half Tile
9965	Eaves Comb
9550	Ambi-Dry Verge (Pack of 10)
9552	Ambi-Dry Eaves/Ridge Pack
7271	Left-Hand Cloaked Verge Tile
7272	Right-Hand Cloaked Verge Tile
9601	Rapid Verge (Pack of 10)
9602	Rapid Verge Eaves/Ridge Pack
8122	Third Round Hip
7411	Third Round Hip with Nail Holes
7784	Third Round Block-End Hip
9046	Dry Hip Pack
9028	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9521	Third Round Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9574	Dry Valley High Profile
7175	Universal Valley Trough Tile
9542	Top Edge Abutment Ventilation Pack
9578	Bonding Gutter High Profile
8101	Half Round Ridge
7519	Half Round Block-End Ridge
9096	DryVent Ridge Pack
9304	Rapid Vented Ridge
9772	Ridge End Cap Half Round
7203	Half Round Monoridge
7266	Half Round Block-End Monoridge Left-Hand
7267	Half Round Block-End Monoridge Right-Hand
9079	DryVent Monoridge Pack
7253	Half Round Ridge Vent Terminal
7241	Half Round Gas Flue Ridge Terminal
9115	RedLine Ventilation Tile (inc. Underlay Seal)
7930	8.8k ThruVent Tile (inc. Underlay Seal)
9246	Tile Clip
9298	Verge Clip Right-Hand
9121	Verge Clip Left-Hand
9287	Eaves Clip (inc Nail)
9333	60 x 3.35mm Aluminium Alloy Nails (for Tile Clips)
9337	75 x 3.75mm Aluminium Alloy Nails (for Tiles)
7174	Dentil Slips - Width 39mm
9249	Regent Outlet Base

* All weights nominal
#(A/A) Aluminium Alloy

FENLAND PANTILE

Size (overall)	381 x 227mm
Minimum Pitch and Headlap	17.5° at 100mm headlap
	22.5° at 75mm headlap
Maximum Pitch	90°
(subject to fixing specification)	
Maximum Headlap	125mm
Minimum Gauge/Batten Spacing	256mm
Maximum Gauge/Batten Spacing	below 22.5° 281mm
	22.5° and over 306mm
Hanging Length (approx.)	362mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 tile	200mm
Covering capacity at max gauge	16.3 tiles/m^2
Weight (at max. gauge approx.)*	45kg/m^2
per pallet, including pallet (approx.)	0.98 tonnes
Battens Required (at max. gauge)	3.26m/m^2
Batten Size	
Rafter centres up to 450mm	38 x 25mm
Rafter centres up to 600mm	50 x 25mm
Fixing Clips	Eaves, Verge & Tile Clips
Nail Size for Tiles#	45 x 3mm (A/A)
Number of Tiles/Pallet	336

Colour 30 34 36 39 52 53 63

www.redland.co.uk/fenlandpantile

5121	Fenland Pantile
9965	Eaves Comb
8122	Third Round Hip
7411	Third Round Hip with Nail Holes
7784	Third Round Block-End Hip
9502	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9521	Third Round Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9574	Dry Valley High Profile
7175	Universal Valley Trough Tile
9578	Bonding Gutter High Profile
8101	Half Round Ridge
9304	Rapid Vented Ridge
9772	Ridge End Cap Half Round
7203	Half Round Monoridge
7253	Half Round Ridge Vent Terminal
7241	Half Round Gas Flue Ridge Terminal
7329	4.5k ThruVent Tile (inc. Underlay Seal)
9177	Tile Clip
9148	Verge Clip Left-Hand
9149	Verge Clip Right-Hand
9178	Eaves Clip
9334	45 x 3mm Aluminium Alloy Nails (for Tiles)
9338	50 x 3.35mm Aluminium Alloy Nails (for Eaves Clips)
9333	60 x 3.35mm Aluminium Alloy Nails (for Tile Clips)
7172	Dentil Slips - Width 81mm

* All weights nominal
#(A/A) Aluminium Alloy

REDLAND 49

Size (overall)		382 x 226mm
Minimum Pitch and Headlap		
	Through coloured	17.5° at 100mm headlap
		25° at 75mm headlap
	Granular	22.5° at 100mm headlap
		30° at 75mm headlap
Maximum Pitch		90°
(subject to fixing specification)		
Maximum Headlap		125mm
Minimum Gauge/Batten Spacing		257mm
Maximum Gauge/Batten Spacing		
	Through coloured	below 25° 282mm
		25° and over 307mm
	Granular	below 30° 282mm
		30° and over 307mm
Hanging Length (approx.)		360mm
Cover (all figures are net and do not allow for wastage)		
Linear cover of 1 tile		200mm
Covering capacity at max gauge		16.3 tiles/m^2
Weight (at max. gauge approx.)*		46kg/m^2
per pallet, including pallet (approx.)		1.01 tonnes
Battens Required (at max. gauge)		3.26m/m^2
Batten Size		
Rafter centres up to 450mm		38 x 25mm
Rafter centres up to 600mm		50 x 25mm
Fixing Clips		Eaves, Verge & Tile Clips
Nail Size for Tiles#		50 x 3.35mm (A/A)
Number of Tiles/Pallet		336

Colour 02 03 30 34 36 39 52 78

1101	49 Tiles
8122	Third Round Hip
7411	Third Round Hip with Nail Holes
7784	Third Round Block-End Hip
9502	Rapid Hip
9313	Uni-Vent Rapid Ridge/Hip
9521	Third Round Ridge/Hip Junction
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9574	Dry Valley High Profile
7175	Universal Valley Trough Tile
9578	Bonding Gutter High Profile
8101	Half Round Ridge
9304	Rapid Vented Ridge
9772	Ridge End Cap Half Round
7203	Half Round Monoridge
7253	Half Round Ridge Vent Terminal
7241	Half Round Gas Flue Ridge Terminal
7334	4.5k ThruVent Tile (inc. Underlay Seal)
9129	Rapid Roof Vent (inc. Underlay Seal & Vent Adaptor)
9185	Tile Clip
9297	Verge Clip
9527	Eaves Clip (Pack of 25)
9338	50 x 3.35mm Aluminium Alloy Nails (for Tiles & Eaves Clips)
9333	60 x 3.35mm Aluminium Alloy Nails (for Tile Clips)

* All weights nominal
#(A/A) Aluminium Alloy

www.redland.co.uk/49

POSTEL CLAY ROMAN

Size (overall)	315 x 230mm
Minimum Pitch	20°
Maximum Pitch	90°
(subject to fixing specification)	
Minimum Headlap	70mm
Maximum Headlap	125mm
Minimum Gauge/Batten Spacing	235mm
Maximum Gauge/Batten Spacing	245mm
Hanging Length (approx.)	285mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 tile	200mm
Covering capacity at max. gauge	20.4 tiles/m^2
Weight (approx.)*	at max. gauge 41kg/m^2
per pallet, including pallet (approx.)	1.22 tonnes
Battens Required (at max. gauge)	4.08m/m^2
Batten Size	
Rafter centres up to 450mm	38 x 25mm
Rafter centres up to 600mm	50 x 25mm
Nail Size for Tiles#	45 x 3.35mm (S/S)
Number of Tiles/Pallet	600
Colour	82

www.redland.co.uk/postel

5981	Postel Clay Tiles
5982	Left Hand Verge Tiles
9965	Eaves Comb
8454	Third Round Hip (300mm long)
8312	Third Round Hip (Concrete)
8311	Third Round Hip with Nail Holes (Concrete)
8317	Third Round Block-End Hip (Concrete)
9313	Uni-Vent Rapid Ridge/Hip
9521	Third Round Ridge/Hip Junction
9258	Hip Iron
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9574	Dry Valley High Profile
9578	Bonding Gutter High Profile
8450	Half Round Ridge (300mm long)
8302	Half Round Ridge (Concrete)
9304	Rapid Vented Ridge
9772	Ridge End Cap Half Round
8304	Half Round Monoridge (Concrete)
8486	Half Round Ridge Vent Terminal (450mm long)
8310	Half Round Ridge Vent Terminal (Concrete)
7845	4.5k ThruVent Tile (inc. Underlay Seal)
9350	45 x 3.35mm Stainless Steel ARS Nails (for Tiles)
9104	38 x 4.2mm Stainless Steel Screws (for Tiles)

* All weights nominal
#(S/S) Stainless Steel Annular Ring Shanked

CATHEDRAL CLAY PANTILE

Size (overall)	411 x 265mm
Minimum Pitch and Headlap	22.5° at 61mm headlap
	30° at 51mm headlap
Maximum Pitch	90°
(subject to fixing specification)	
Maximum Headlap	71mm
Minimum Gauge/Batten Spacing	340mm
Maximum Gauge/Batten Spacing	below 30° 350mm
	30° and over 360mm
Hanging Length (approx.)	358mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 tile	225mm
Covering capacity at max gauge	12.5 tiles/m^2
Weight (at max. gauge approx.)*	39kg/m^2
per pallet, including pallet (approx.)	0.91 tonnes
Battens Required (at max. gauge)	2.74m/m^2
Batten Size	
Rafter centres up to 450mm	38 x 25mm
Rafter centres up to 600mm	50 x 25mm
Nail Size for Tiles#	included with tile 60 x 2.65mm
Number of Tiles/Pallet	288
Colour	80 82

www.redland.co.uk/cathedral

5921	Cathedral Clay Pantiles
5926	Left-Hand Verge Tiles
5929	Two-Thirds Tile
9965	Eaves Comb
5927	Left-Hand Cloaked Verge Tile
5928	Right-Hand Cloaked Verge Tile
7831	Clay Capped Half Round Ridge/Hip
8312	Third Round Hip (Concrete)
8311	Third Round Hip with Nail Holes (Concrete)
8317	Third Round Block-End Hip (Concrete)
9870	Rapid Hip
9521	Third Round Ridge/Hip Junction
9258	Hip Iron
9069	Rapid Hip Support Tray (1.2m)
9595	125 GRP Valley
9574	Dry Valley High Profile
9578	Bonding Gutter High Profile
7831	Clay Capped Half Round Ridge/Hip
7832	Clay Capped Half Round Block-End Ridge
7833	Clay Plain Half Round Block-End Ridge
8302	Half Round Ridge (Concrete)
8303	Half Round Block-End Ridge (Concrete)
9304	Rapid Vented Ridge
9772	Ridge End Cap Half Round
8304	Half Round Monoridge (Concrete)
8305	Half Round Block-End Monoridge Left-Hand (Concrete)
8306	Half Round Block-End Monoridge Right-Hand (Concrete)
8310	Half Round Ridge Vent Terminal (Concrete)
7830	4.5k ThruVent Tile (inc. Underlay Seal)
9636	Tile Clip
9633	Verge Clip Right-Hand
9632	Verge Clip Left-Hand
9178	Eaves Clip
9338	50 x 3.35mm Aluminium Alloy Nails (for Eaves Clips)
9634	60 x 2.65 mm Stainless Steel ARS Nails (for Tiles)
7172	Dentil Slips - Width 81mm

* All weights nominal
#(A/A) Aluminium Alloy

OLD HOLLOW CLAY PANTILE

Size (overall)	343 x 242mm
Minimum Pitch and Headlap	30° at 48mm headlap
	35° at 38mm headlap
Maximum Pitch	90°
(subject to fixing specification)	
Minimum Gauge/Batten Spacing	295mm
Minimum Gauge/Batten Spacing	below 35° 295mm
	35° and over 305mm
Hanging Length (approx.)	310mm
Cover (all figures are net and do not allow for wastage)	
Linear cover of 1 tile	below 35° 206mm
	35° and over 202mm
Covering capacity	below 35° 16.4 tiles/m^2
	35° and over 16.2 tiles/m^2
Weight (at max gauge approx.)*	below 35° 33kg/m^2
	35° and over 32kg/m^2
per pallet, including pallet	(approx.) 0.69 tonnes
Battens Required (at max. gauge)	
	below 35° 3.39m/m^2
	35° and over 3.28m/m^2
Batten Size	
Rafter centres up to 450mm	38 x 25mm
Rafter centres up to 600mm	50 x 25mm
Nail Size for Tiles#	55 x 2.65mm (S/S)
Number of Tiles/Pallet	336
Colour	60 80

www.redland.co.uk/oldhollow

5991	Old Hollow Clay Pantiles
5992	Left-Hand Verge Tiles
9965	Eaves Comb
7835	Clay Capped Half Round Ridge/Hip
9258	Hip Iron
9574	Dry Valley High Profile
9595	125 GRP Valley
9578	Bonding Gutter High Profile
7835	Clay Capped Half Round Ridge/Hip
7834	4.5k ThruVent Tile (inc. Underlay Seal)
9637	Tile Clip
9640	Verge Clip Right-Hand
9639	Verge Clip Left-Hand
9178	Eaves Clip
9338	50 x 3.35mm Aluminium Alloy Nails (for Eaves Clips)
9638	55 x 2.65mm Stainless Steel ARS Nails (for Tiles)
7172	Dentil Slips - Width 81mm

* All weights nominal
#(S/S) Stainless Steel Annular Ring Shanked

Solar PV Tiles

Designed and engineered specifically to cope with UK weather conditions while making the most efficient use of available solar energy, Redland Solar PV Tiles offer performance, durability and a 25 year Power Output Guarantee. They provide aesthetically pleasing solutions that are compatible with Redlands most popular tiles and slates.

KEY ADVANTAGES

- Fully integrated PV tiles to satisfy specifiers, planning bodies and householders alike
- Individual designs to match the most popular Redland roofing tiles:
  - Slate 10 Range
  - Mini Stonewold and MockBond Mini Stonewold
  - Grovebury and Landmark Double Pantile
  - 50 Double Roman and Landmark Double Roman
  - Plain Tiles
  - Natural Slate
- Aluminium framing for improved strength and fire resistance
- Fully MCS and BBA certified
- 15 year guarantee, as part of the SpecMaster project.
- 25 years power output guarantee

Cell Type	Mono-Crystalline
Number of Cells	22
Power Output	90Wp
Cell Dimensions (mm)	156 x 156

APPROVED PRODUCT

MCS

BBA APPROVAL INSPECTION TESTING CERTIFICATION

MCS BBA 0019

www.redland.co.uk/pvtiles
Solar PV Tiles

InDaX 250 PV System

Based on proven crystalline technology, the fourth generation of Monier InDaX photovoltaic integrated modules fulfils two functions: clean, solar electricity generation and a secure roof covering

- Compatible with all Redland tiles and slates
- High aesthetics
- Safe, flexible and quick assembly
- Wide pitch range capability
- Maximum energy yield
- Weathertight and high wind uplift resistance
- Fully MCS and BBA certified
- 25 years power output guarantee

High aesthetics
Low overall system height with modules mounted in attractive black coated aluminium framing.

Safe, flexible and quick assembly
Modules can be installed from left to right or right to left and can be installed in either rows or columns. This flexibility, along with a minimum number of parts and the low system weight, means the installation can be carried out simply and quickly. Modules are installed from top to bottom ensuring maximum safety during installation. Separate drainage channels overcome any unevenness in the roof structure.

Wide pitch range capability
The InDaX system can be installed on roofs with pitches between 12.5° and 65°.

Maximum energy yield
Modules are laid in arrays and mounted in specially designed framing that optimises the ventilation at the rear of each module and thereby maximises the power output. Holes in the eaves profile allows condensate to drain away.

Weathertight and high wind uplift resistance
InDaX modules fulfil the same protective functions as roof tiles, i.e. weathertightness and resistance to wind uplift. Modules can withstand loads up to 550 kg/m². High quality flashings from the roof window industry are used with the weathertightness of the system guaranteed for 15 years as part of a SpecMaster project.

Fully MCS and BBA certified
Monier InDaX PV system is certified to MCS 005. It also meets the requirements of the new MCS 012 standard covering wind uplift resistance, weathertightness and external fire resistance.

25 years power output guarantee
Monier guarantees that during the first year of operation the module power output will be at least 96.5% of the rated power output. From year 2 to 25, the manufacturer guarantees that the module power output will reduce by no more than 0.6% per year of the rated power output, such that by the end of the 25th year of operation, the modules will still provide a minimum power output of 82% compared to the rated power output.

APPROVED PRODUCT
MCS
BBA APPROVAL INSPECTION TESTING CERTIFICATION
MCS BBA 0019

www.redland.co.uk/indax
InDaX 250 PV System

InDaX 250 PV System

Output under standard test conditions (STC)

Nominal power [Wp] Pmpp	250
Voltage at nominal power [V] Umpp	29.73
Current at nominal power [A] Impp	8.41
Open-circuit voltage [V] UOC	37.62
Short-circuit current [A] ISC	8.91
Module efficiency (%) Eta	15.2

Under STC (1,000 W/m², spectrum AM 1.5 and cell temperature 25°C), electrical tolerances ±10%

Framing and Flashing Components for a 2 x 2 Module Array (Basic Set)

Output at normal operating cell temperature (NOCT)

Nominal power [Wp] Pmpp	187.09
Voltage at nominal power [V] Umpp	27.91
Current at nominal power [A] Impp	6.70
Open-circuit voltage [V] UOC	35.39
Short-circuit current [A] ISC	7.17
Temperature [° C] T_{NOCT}	46 ± 2

NOCT (800 W/m², spectrum AM 1.5, wind speed 1 m/s, ambient temperature of 20°C)

Temperature coefficients

Power [%/K] Pmpp	-0.43
Open-circuit voltage [%/K] UOC	-0.35
Short-circuit current [%/K] ISC	+0.03

Characteristic data

Solar cells per module	60
Cell type	Polycrystalline 156 x 156mm
Junction box	IP65
Connector	KSK4
Front panel	Tempered solar glass
Backside panel	Laminated thermoplastic
Framing	Black anodised aluminium

Dimensions and weights

Overall dimensions	1,769 x 999mm
Installed dimensions (visible)	1,705 x 999mm
Thickness	75mm
Weight	21.5 kg (approx)
Laid weight 1	2.1 kg/m² (approx)

Limits

Maximum system voltage [VDC]	1,000
Reverse current carrying capacity [IR A]	15
Operating temperature range [°C]	-40 to +85
Maximum load (to IEC 61215)	pressure: 5,400 N/m² or 550 kg/m² suction: 2,400 N/m² or 245 kg/m²
Application classification (to IEC 61730)	A
Fire classification (to IEC 61730)	C
Class range (positive classification)	-0/+4.99W
Measuring accuracy Pmpp at STC	±3%

Compliance and Certification

The modules are certified to IEC 61730 and IEC 61215. In addition, Monier is certified and registered to ISO 9001, ISO 14001 and OHSAS 18001.

The instructions for assembly and use of this product can be found in the fixing instructions supplied and are available for download from www.redland.co.uk/indax

Data shown are subject to change without prior notice. All information complies with the requirements of EN 50380.

Redland roofing components and systems

A quick reference guide to choosing the right system components to match the architectural and performance specifications of every project. Redland dry roof systems offer speed and ease of installation, combined with proven performance and durability in even the most challenging weather conditions and environments. Use our online design and specification tools to develop plans and accurate costings.

www.redland.co.uk/specmaster

Specifiers' services

Cambrian Slate Fixing Instructions

The Cambrian Slate incorporates a unique three point fixing system that makes it suitable for even the most exposed sites. This ensures the system is durable but lightweight.

Pack Contents & Fixing Packs

Fixing	Quantity Per Pack	Product Code	
Slate Clip	100 clips with 210 ring shanked nails (30mm x 2.65mm dia.)	9196	
Eaves Clip	50 clips with 50 ring shanked nails (55mm x 2.65mm dia.)	9192	
Verge Clip	20 clips with 40 ring shanked nails (30mm x 2.65mm dia.)	9193	

When fixing Cambrian Slates ensure that nails are fully driven home and clips fit tightly. For the best visual effect on the roof, slates must be selected from a minimum of three different pallets.

Underlay and Battening

Fix underlay and batten out in the traditional manner to BS8000: Part 6. For help setting out the position of the eaves or bottom course batten to provide the required overhang into the gutter, please note the hanging length of the Cambrian Slate is approximately 294mm. Important: on bedded verges, battens should finish approximately 50mm short of outside edge of the brickwork or barge board, to ensure adequate verge clip fixing. If using Redland Ambi-Dry Verge, see separate instructions for fixing underlay and battens.

1 | Eaves course

Slate to overhang fascia by 50mm.

(i) Nail head of slate through both nail holes using 30mm ring shanked nails.

(ii) Fit the Eaves Clip and nail through the slot into the fascia board using the 55mm ring shanked nails provided (See notes below).

(iii) At a bedded verge, Verge Clips should be nailed into the fascia board and pinched to secure the verge slates at the eaves.

Note: Eaves clips are provided with 55mm nails to ensure adequate fixing with the RedVent Eaves Ventilation System.

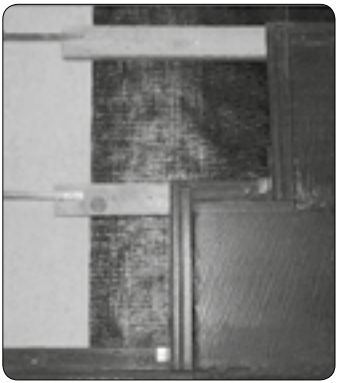
2 | General roof area

Slates are laid broken bond from right to left. The locating arrow on the head of the slate will assist with the positioning of the slate above and help maintain the broken bond.

(i) Nail head of slate through both nail holes using 30mm ring shanked nails.

(ii) Fit Slate Clip shown and gently tap or press into place.

Cambrian Slate Fixing Instructions



3 | Bedded verges

Battens should finish approximately 50mm short of the outside edge of the brickwork or barge board. Undercloak strip should be fixed in the normal manner. Ensure broken bond is maintained by using Slate/Slate-and-a-half (4701/4702) for the right-hand verge and Left-hand Verge Slate/Left-hand Verge Slate-and-a-half (4703/4704) for the left-hand verge.

(i) Position the verge clip to ensure overhang of 38mm-50mm.
(ii) Twice nail verge clip into face of batten using the 30mm ring shanked nails.
(iii) Every verge slate must be twice nailed. It may be necessary on-site to drill an additional hole of 3 - 3.5mm to achieve this requirement.

IMPORTANT: Both left-hand and right-hand verges must be clipped using verge clips.

4 | Side Abutments

Construct a 50mm wide x 25mm deep lead secret gutter or fit a GRP Secret Gutter (9596) and cut slates closely to fit abutment. Dress a code 4 lead or Rapid Flashing step and cover flashing down from the abutment and over the slates by not less than 150mm.

In all situations the free edge of the lead cover flashing should be clipped in accordance with the Lead Sheet Association recommendations. (Tingles should not be used through the sidelock to secure the edge of a lead flashing).

5 | Cambrian Lead Valley & GRP Valley

Slates should be neatly cut into the valley using Slate-and-a-half (4702) or Double Slate (4705) to avoid fixing small pieces. All slates should be secured with at least two head fixings. Where necessary, drill an additional 3-3.5mm hole on-site.

Use verge clips on each course both sides of the valley at the slate overlap, to prevent the cut edge from lifting. Install clips at right angles to the rake of the valley and twice nail into the clipping batten using the 30mm nails.

6 | Bedded Hips and Ridges

Hips should be laid using Slate-and-a-half (4702) or Double Slate (4705) to avoid fixing small pieces. All slates should be secured with at least two head fixings. Where necessary, drill an additional 3-3.5mm hole on-site. All mortar bedded hip and ridge tiles must be mechanically fixed. Bed hip and ridge tiles continuously along edges and solidly at butt joints with a BS5534 compliant cement sand mortar. Fix 6mm galvanised hip irons to the foot of each hip rafter.

7 | DryVent Ridge Systems (9059)

Refer to fixing instructions in packs. Each pack contains sufficient product for 2.7m of ridge (excluding ridge tiles).

8 | Ambi-Dry Verge System (9570)

Refer to fixing instructions in packs. Each pack contains sufficient product to fix 10 verge slates. At the eaves and ridge, use Ambi-Dry Eaves/Ridge Pack (9491).

9 | Top Edge Abutment Ventilation System (9548)

Refer to fixing instructions in packs. Each pack contains sufficient product for 2.7m of ridge (excluding ridge tiles).

10 | Top Course

Fix final batten to ensure ridge tiles will cover the top course of slates by min. 75mm

11 | ThruVent 4.5k (7705)

Refer to fixing instructions on vent. Use Flexible Pipe 75/100mm (9188) for connection to soil vent or mechanical extract outlets.

12 | Dry Hip System (9048)

Refer to fixing instructions in packs. Each pack contains sufficient product for 2.7m of hip (excluding hip tiles).

13 | Mitred Hip System (9504)

Refer to fixing instructions in packs. Each pack contains sufficient product to complete 10 courses.

14 | Roof windows and other penetrations

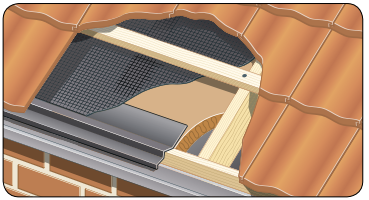
All slates abutting a roof window or penetration should be twice nailed and clipped with verge clips. Double Slates must be used and small cuts should be avoided around windows.

Additional fixing instructions for use with roof windows are available on request from Redland Technical Solution (Tel: 08708 702595)

15 | Cutting

Cambrian Slates do not contain asbestos fibre. They are easily cut using a disc cutter. It is recommended that sensible precautions are taken to avoid inhalation of dust generated during the cutting process. If excessive concentrations of dust are generated, the measures as defined in the Health and Safety Executive Guidance Note EH40193 Occupational Exposure Limits 1993 for unlisted substances should be followed. Cambrian Slates are covered by a 60 year guarantee and BBA Certificate No. 87/1907.

Underlays

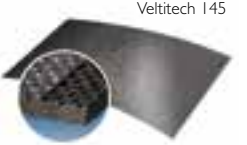


The Spirtech range comprises high quality, durable, vapour permeable underlays designed to be robust with high tensile strength. Veltitech 145 is a strong, yet lightweight, non-breather underlay that can be used as an alternative to bituminous felt.

Spirtech 250

Spirtech 400 2S

Veltitech 145



Product Description	Product Code
Spirtech 250 (50m x 1.5m)	9077
Spirtech 400 (50m x 1.5m)	9201
Spirtech 400 2S (50m x 1.5m)	9202
Veltitech 145 (50m x 1.5m)	9203

Ancillary Products

9076	Underlay Support Tray
9439	UnoRoll
9440	DuoRoll
9458	Divotape

Scope

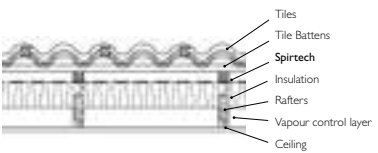
These instructions apply to slated and tiled roofs which are not boarded with any form of ridgid sarking board. For use in other constructions or with alternative roof coverings contact Technical Solutions (Tel. 08708 702595).

General – all roof constructions

The outer roof covering should be applied as soon as the installation of the underlay is complete. Any rips or tears in the underlay should be repaired using Divotape.

Insulation at rafter level (Warm roof)

Spirtech can be laid either directly onto insulation board or draped between counterbattens above insulation.



The batten cavity above the Spirtech and any small roof void between the underlay and insulation below need not be positively ventilated as long as the following conditions are met:

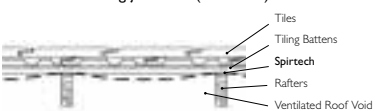
1. The slates/tiles are classified as air open when tested in accordance with BS 5534 – consult slate/tile manufacturer;
2. A vapour control layer is installed on the warm side of the insulation with laps of sufficient dimension adequately sealed – refer to insulation manufacturer for advice;
3. A Well Sealed Ceiling is provided in accordance with BS 5250 below the vapour control layer.

If these conditions are not fulfilled then positive ventilation to the capacity of 25,000 mm²/m at low level and 5,000 mm²/m at high level must be provided to the batten cavity (if slates/ tiles are not air open), or the small roof void between Spirtech and insulation (if Well Sealed Ceiling is not realised). In the latter case if a Well Sealed Ceiling is realised but vapour control layer omitted the small roof void must be ventilated to a capacity of 5,000 mm²/m at high level only.

Laying procedure – insulation boards above rafters:

1. Ensure the fascia board is fixed at the correct height. The finished eaves detail must be such that the final course of slates or tiles lies in the correct plane and the underlay maintains a positive fall.
2. Clout nail or staple the Underlay Support Tray to the top of the fascia board with the leading edge forming a drip into the gutter. Trays should be butted up against one another (not overlapped) and fixed at centres not greater than 300 mm.
3. Ensure the rear edge of the Underlay Support Tray rests on the insulation below the line of the first tiling batten. For Plain Tiles, Cambrian and DuoPlain it will be necessary to remove the rear section of the tray by snapping or cutting along the score line. If Spirtech is laid over counter-battens, ensure that these extend below the line of the first tiling batten in order to support the rear of the tray.
4. Roll out Spirtech horizontally across the roof with the bottom edge in line with the top of the fascia. For Spirtech 400 2S, remove backing from lower adhesive strip and adhere to underlay support tray.
5. Fit RedVent 25 Fascia Vents (if low level ventilation is required) along the top of the fascia board nailing through the Spirtech and the Underlay Support Tray.
6. Continue to lay Spirtech ensuring that each course overlaps the one below by the correct amount, (see table.) When laying Spirtech directly onto the insulation boards each underlay course must be secured before starting on the next. For Spirtech 400 2S, remove backing from the two adhesive strips and ensure they adhere at the overlaps. UnoRoll is required to connect the vertical overlaps and connections to the building structure.
7. At ridges and hips follow relevant ridge/hip details.
8. At verges and side abutments follow relevant verge/side abutment details.
9. At valleys follow relevant valley details for lead or GRP valleys, troughs or valley tiles.

Insulation at ceiling joist level (Cold roof)

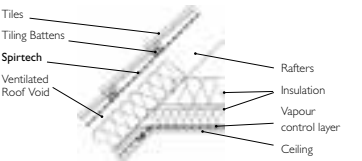


Spirtech must be laid with a minimum drape between rafters of 10mm and a maximum of 15mm. The roof void below Spirtech must be positively ventilated to a capacity of 5,000 mm²/m at high level when the following conditions are met:

1. The slates/tiles are classified as air open when tested in accordance with BS 5534 – consult slate/tile manufacturer;
2. A Well Sealed Ceiling is provided as per BS 5250.

If these conditions are not fulfilled then positive ventilation of the roof void below the Spirtech must be increased to a capacity of 10,000 mm²/m at low level and 5,000 mm²/m at high level (Note: For roof pitches of 35 degrees or lower, or roof spans of 10m or less the high level ventilation can be omitted so long as the roof is not a lean-to/monopitch roof and that 10,000 mm²/m ventilation is installed at low level).

Insulation at both rafter and ceiling joist level (Hybrid roof)



The roof void below Spirtech must be positively ventilated to a capacity of 5,000 mm²/m at high level when the conditions of an air open roof covering and Well Sealed Ceiling are met. If these conditions are not fulfilled then positive ventilation of the roof void below the Spirtech must be increased to a capacity of 10,000 mm²/m at low level and 5,000 mm²/m at high level.

Headlap and Sidelap

The headlap of the Spirtech should be in accordance with the following table taken from BS 5534. Sidelaps must be a minimum of 100 mm and should coincide with a rafter/counterbatten line in order to secure the roll ends. Avoid laps above the same support in consecutive layers.

Minimum headlap at given rafter pitch

Rafter pitch degrees	Not fully supported mm	fully supported mm
12.5 - 14.5	225	150
15 - 34.5	150	100
35 and above	100	75

Well Sealed Ceiling

The design avoids constructional gaps and holes in the ceiling and, where unavoidable for services and roof lights, the penetrations are permanently sealed using suitable sealant. The design also avoids the location of ceiling access doors/hatches in rooms where large amounts of moisture are generated including kitchens and bathrooms, and where such access doors/hatches exist in other rooms they achieve an air leakage rate less than 1m³/hr at a pressure difference of 2Pa when tested to BS EN 13141-1: 2004 4.3. The total leakage through all downlighters present should also not exceed 0.06 m³/hr/m² of ceiling at 2Pa pressure difference using the same test method.

Rapid Loft Board

A straight-forward and high performance way to floor a loft, Rapid Loft Board's extremely efficient insulating layer and sturdy 8mm OSB facing turns roofspaces into practical storage space.

Product Codes and Description	Pack Contents	Coverage (fitted)
9423 100mm Rapid Loft Board	20 Boards	12.7m²
9426 140mm Rapid Loft Board	16 Boards	10.1m²

1 | Preparation

The roof structure should be fit for purpose. Timber and composite materials are sensitive to moisture and temperature. Rapid Loft Board Insulation should be stored so that it can adapt to the moisture levels at the installation site and should be protected against wetting and mechanical damage. Ensure the loft area is clear, well lit and ventilated. Isolate electrical wiring in the loft. Electrical cables should be repositioned above any insulation to avoid overheating. Insulation should not cover the area directly above light fittings unless sealed hoods are introduced.

2 | Before Work Starts

The ceiling joists or existing boarding must be checked before installation for their load-bearing capacity and level-ness. Severe unevenness should be rectified to ensure a level surface for the Rapid Loft Board Insulation. The surface to be laid upon should also be checked to ensure it is dry, especially in new build, and any moisture removed if necessary.

3 | Ventilation

If Rapid Loft Board Insulation panels are being installed at the same time the roof covering is being renewed, ventilation to the loft space should be provided in accordance with the requirements of BS 5250.

At low level a continuous 10 mm ventilation opening should be provided to the loft. This can be achieved by installing the Redland RedVent Eaves Ventilation System. Where the rafter pitch is 15° or less, this should be increased to a continuous 25 mm ventilation opening. This can be achieved by installing the Redland RedVent 25 Over Fascia Ventilator with the Redland Underlay Support Tray.

4 | Laying the Insulation

Rapid Loft Board Insulation must be laid with the boards staggered, offset by about half a board length as shown. The layout should be chosen so as to minimise offcuts.

Laying starts at one corner. To eliminate thermal bridges, the tongue is removed along the sides if in contact with walls. This is done mechanically using standard woodworking tools (e.g. circular saw, hand saw). Do not forget the initial spacer wedges around the edges.

Rapid Loft Boards should be laid so as to span a minimum of two, and preferably three, ceiling joists. Where only two joists are spanned, consideration should be given to the loads that can be applied to the areas where joints occur. The 8 mm wood board (P5) laminated to the top of Rapid Loft Board Insulation with its tapered tongue and groove edge makes it easier to fit the panels together. Apply standard wood glue to the top surface of the tapered tongue and groove edge. The surfaces to be bonded must be clean and fee from dust and grease.

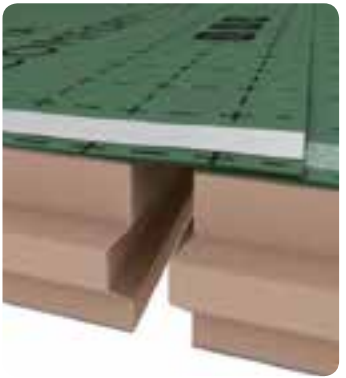
5 | Fixing the Boards

Each Rapid Loft Board Insulation panel can be fixed on each corner of each board, through to the existing ceiling joists. This should be carried out using suitable length wood screws. Care should be taken not to drill or screw through cables or pipes.

6 | Final Steps

When the joints and glued connections of the Rapid Loft Board Insulation have set, the spacer wedges around the edges can be removed. It is advisable to inspect the insulation around thermal bridges, e.g. near knee walls or lower purlins, by suitable means and check that ventilation openings at the eaves are not blocked and can still function.

Rapid Rafter Insulation



Installed above the rafters, Rapid Rafter Insulation preserves roof space and headroom while an integrated high performance insulating layer helps keep your home energy efficient.

Product Codes and Description	Pack Contents	Coverage (fitted)
9450 140mm Rapid Rafter Insulation	8 Boards	23m²

Technical Data

Dimensions:	2400mm x 1200mm (Outer Dimensions) 2385mm x 1185mm (Fitted Dimensions)
Thickness:	140mm with tongue and groove edges
Material:	Phenolic Rigid Foam, laminated with integrated permeable roof underlay and self-adhesive strips along overlaps.
Pitch Range:	Suitable for all rafter pitches, with rafter centres not exceeding 600mm.
Rafter Widths:	Minimum rafter width 36mm.
Walkability:	Fully walkable with rafter centres up to 600mm, except where joints occur between the supporting rafters.
Laid Weight:	5.6 kg/m²
λ Value:	0.021 W/mK (Declared Value).
Fire Specification:	Class E Reaction to Fire (BS EN 13501-1).
CE Marked:	BS EN 13166 Thermal insulation products for buildings; Factory made products of phenolic foam (PF). Specification.

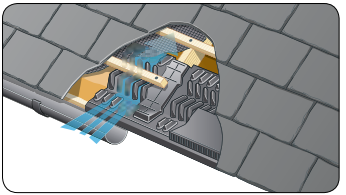
Rapid Rafter Accessories

In addition to the insulation board, a range of fittings is available to ensure correct installation and ensure thermal performance and air-tightness.

- 9455 Rapid Rafter Universal Sealband
- 9465 Kompriband - for 3-5mm gaps (9m x 15mm)
- 9466 Kompriband - for 7-10mm gaps (5m x 15mm)
- 9467 Kompriband - for 8-12mm gaps (3m x 20mm)
- 9464 Underlay Connection Glue
- 9472 Pipe Connection Tube, Straight
- 9473 Pipe Connection Tube, Angled
- 9469 Cable Seal, 8-12mm
- 9470 Cable Seal, 15-22mm
- 9471 Cable Seal, 25-32mm
- 9463 Underlay Sealing Compound
- 9458 DivoTape - for taping tears, sealing roof underlay side-laps and vapour control layer joints (see right)
- 9449 Divodamm Membrane 100 2S - Vapour Control Layer
- 9474 System Fixing Screws, 240mm
- 9475 System Fixing Screws, 280mm

For more information and full fixing instructions use the QR code or visit the Monier Redland website **www.redland.co.uk/rapidrafter.**

RedVent Eaves Ventilation System



The RedVent Eaves Ventilation System provides continuous over-fascia eaves ventilation for use when insulation is laid between or on top of the horizontal ceiling joists.

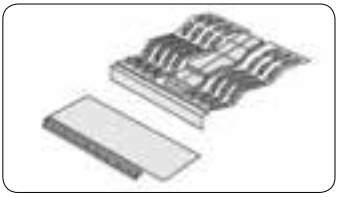
Air duct tray

Fascia grille and apron

Pack Contents:
Air duct tray
Fascia grille and apron

Note: Each pack is sufficient to cover 6 metres of eaves at maximum rafter centres.

Product Codes:
9189 RedVent Eaves for 350-450mm Rafter Centres (14 Units)
9190 RedVent Eaves for 450-600mm Rafter Centres (10 Units)
9498 Extension Pack for 350-450mm Rafter Centres (14 Units)
9499 Extension Pack for 450-600mm Rafter Centres (10 Units)



Fascia board to be positioned or cut 25mm lower than standard position.

2

Cut an air duct tray down the centre of the rafter up stand along the marked groove to provide a starter section.

3

Place the left hand section on the first rafter inside the brickwork at the right hand verge. Ensure that the overhang section is located correctly on the fascia board such that the gutter skirt stands clear of the fascia.

4

Fix the section using two clout head nails. Make the first fixing in the groove marked "Nail A" and the second in the groove marked "Nail B". For Plain Tiles ensure that all slack is taken out at the eaves batten position prior to nailing.

5

Lay a complete air duct tray over the next rafter, snapping all the interlocking sections together and fixing with two clout head nails onto the rafter.

RedVent Eaves Ventilation System

6

Repeat operation 5 to complete the remainder of the roof, utilising the right hand section of the cut air duct tray at the last rafter inside the brickwork. Ensure throughout that the tray is located correctly on the fascia board.

7

To maintain the continuous skirt into the gutter, lay a section of suitable underlay material (300mm wide) from the gable wall to the first rafter at both verges ensuring that the material overhangs the fascia board by 50mm. Nail the material to the rafter.

8

Fix the first facia grille at the right hand verge end of the fascia. Use three 45 x 2.35mm aluminium alloy nails placed in the nail hole guides.

9

Repeat this operation along the eaves ensuring that the grilles are butted together and that the underlay seals are overlapped.

10

Fix the first layer of underlay ensuring a minimum 150mm overlap with the fascia grille apron and leaving the slot in the fascia grille clear. Underlay and batten the remainder of the roof in the normal manner.

11

Where the top of the insulation is greater than 450mm measured from the fascia up the rafter, Extension Trays should be used. They should be laid in the same way as EavesVent trays and can be joined to them if required. Where this distance is greater than 830mm, two rows of extension trays should be used. Diagonal cutting is required for hips to ensure that the continuous skirt into the gutter is maintained. Diagonal cutting is not recommended for valley detailing. Nail any Eaves Comb or Eaves Clips through the continuous slot provided in the top of the fascia grille.

Rapid Eaves Ventilation System

The Rapid Eaves Vent system is designed for use in cold pitched roofs with unheated loft spaces as a means of introducing low level roof space ventilation into the loft space.

Rafter Roll
6m x 800mm

Rapid 2-in-1
Eaves Tray

Eaves Comb

Product Codes and Descriptions*
9984 Rafter Roll (6m x 800mm)
9988 Rapid 2-in-1 Eaves Tray (1m)
9965 Eaves Comb (1m)

* Sold separately

1

Roll out and position the Rafter Roll (9984) over the rafters where the ceiling level insulation (most commonly compressible mineral or glass wool) meets the eaves (Note: the precise position will depend on the eaves construction). Secure the tray to the rafters using 25 x 2.65mm clout nails at every rafter intersection both at the top and bottom of the roll.

2

Lay the 2-in-1 Eaves Tray (9988) over the fascia board using the guiding lugs on the underside of the tray to locate the correct position.

3a

With a timber fascia, nail the 2-in-1 Eaves Tray directly into the top of the fascia board through the raised nail bosses (on the upper surface of the tray) using 60 x 3.35 mm aluminium alloy nails (9333).

Where an Eaves Comb (9965) is required install this on top of the 2-in-1 Eaves Tray prior to nailing the Tray.

3b

With a uPVC fascia, either nail the rear end of the 2-in-1 Eaves Tray into the rafters at every rafter intersection or nail into an additional timber fillet immediately behind the uPVC fascia using 60 x 3.35 mm aluminium alloy nails (9333). Where an Eaves Comb (9965) is required install this on top of the 2-in-1 Eaves Tray prior to nailing the Tray into the additional timber fillet.

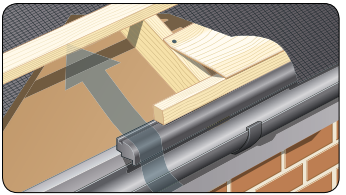
4

The tray units interlock with each other so ensure adjacent units are interlocked correctly together before fixing.

5

Lay the roof underlay ensuring the bottom edge is butted up against any Eaves Comb. Lay the rest of the underlay as per underlay instructions.

RedVent 25 Over-Fascia Vent



The RedVent 25 Over-Fascia Vent provides unobtrusive continuous ventilation at the eaves for use where the insulation is installed either between or above the rafters. Can also be used for low pitch cold roofs.

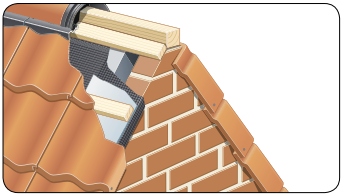
Product Code and Description:
9593 RedVent 25 Over-Fascia Vent 12 grilles (6m)

Over-Fascia Vent

Guidance Notes

- Fascia board must be fixed at a height that ensures eaves course of tiles lie in the same plane as all other tiles on the roof
- Fix RedVent 25 Over-Fascia Vent to top of fascia board.
- Fix 25 x 25mm batten to fascia board through slots in Fascia Vent with 90 x 3.35mm nails.
- Install a 4mm thick tilting fillet with a positive fall to support underlay over the Fascia Vent.
- Lay underlay and dress over Fascia Vent to bottom of drip ensuring a clear path is maintained between underlay and gutter, and that grille is not obstructed.
- Suitable for softwood fascia boards 25mm thick and above.
- No rafter tray required when underlay is fully supported by insulation.
- For fascia board heights contact Technical Solutions.
- The gutter's size and position will need to be calculated to ensure that rainwater discharges directly into it.

Cloaked Verge System



The Cloaked Verge System continues the tiling over the gable end using a one piece concrete tile. The system has very high resistance to storm damage and with no wet trades required it removes concerns about mortar failure.

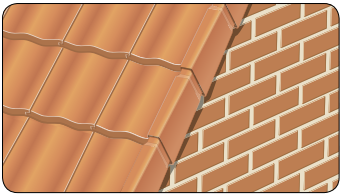
Product Codes and Descriptions:

7271 Regent LH Cloaked Verge
7272 Regent RH Cloaked Verge
7273 Grovebury LH Cloaked Verge
7274 Grovebury RH Cloaked Verge
7275 50 Double Roman LH Cloaked Verge
7276 50 Double Roman RH Cloaked Verge
7277 Renown LH Cloaked Verge
7278 Renown RH Cloaked Verge
8333 Landmark Double Pantile LH Cloaked Verge
8334 Landmark Double Pantile RH Cloaked Verge
8343 Landmark Double Roman LH Cloaked Verge
8344 Landmark Double Roman RH Cloaked Verge
5927 Cathedral Clay Pantile RH Cloaked Verge
5928 Cathedral Clay Pantile LH Cloaked Verge
5929 Cathedral Clay Pantile 2/3 Tile
7710 Renown Half Tile
7730 50 Double Roman Half Tile
7750 Regent Half Tile
7770 Grovebury Half Tile
8331 Landmark Double Pantile Half Tile
8341 Landmark Double Roman Half Tile

Guidance Notes

- When setting out the roof, the verge overhang should be the same at both verges. The use of Half Tiles (Two Thirds Tile for Cathedral) in each course will allow the overhang to be reduced to a minimum.
- Cloaked Verge Tiles are not suitable for raking verges.
- Every Cloaked Verge Tile must be nail fixed, and the integral nylon plug must interlock with the Cloaked Verge Tile in the course below.
- The left-hand Cloaked Verge Tile on the eaves course must be clipped to the adjacent tile using a 'C' clip (9179). This is supplied in every Block-End Ridge Tile pack (not applicable to Cathedral).
- Finish ridge with Block End Ridge Tiles.
- An undercloak should be installed between the battens and the structure, touching the inside face of the cloaked verge tile, to prevent bird ingress.
- At top edge abutments, a lead flashing or Rapid Flashing should dress down the face of the cloak to provide a full weathertight covering. The flashing length will be dependent on the rafter pitch.
- In cases where no batten end fixing is available on roof pitches of 30° and above, a second batten is required to support the main batten. It is essential to secure the second batten over at least two rafters.
- Where timber sarking is used over the main roof area, the tiling battens should rest on the external brickwork or cladding. On overhanging verges, the final counterbatten should be 6mm thinner to allow for undercloak.
- At the eaves, for Landmark Double Pantile, Regent and Grovebury Tiles, Eaves Comb should be cut to fit the inside profile of the Cloaked Verge Tiles.

Ambi-Dry and Dry Verge System



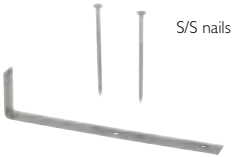
The Ambi-Dry and Dry Verge Systems provide a neat, maintenance-free verge for slates and our most popular profile tiles. With very high resistance to storm damage and with no wet trades required, it removes concerns about mortar failure.

Ambi-Dry Verge
(9550 shown)

Ambi-Dry Verge Units

Batten end clips,
and S/S nails

Eaves/Ridge Pack
(9552 shown)



S/S nails

Eaves Clip

Ridge Comb Unit

Ambi-Dry Verge Bag Contents
10 x Ambi-Dry Verge Units
10 x Batten End Clips
10 x Stainless Steel Nails 65mm x 3.35mm
20 x Stainless Steel Nails 20mm x 2.65mm

Eaves/Ridge Pack Contents
1 x Eaves Closure Unit
1 x Ambi-Dry Eaves Clip
1 x Ridge Comb Unit
2 x Stainless Steel Annular Ring Shanked Nails
55mm x 2.65mm

Product Codes and Descriptions:
9550 Metric Ambi-Dry Verge
9570 Cambrian Ambi-Dry Verge
9576 Stonewold II Ambi-Dry Verge
9660 DuoPlain Ambi-Dry Verge
9603 Slate10 LH Dry Verge
9604 Slate10 RH Dry Verge
9552 Metric Ambi-Dry Eaves Ridge Pack
9491 Cambrian Eaves Ridge Pack
9495 Stonewold II Ambi-Dry Eaves Ridge Pack
9680 DuoPlain Ambi-Dry Eaves Ridge Pack
9605 Slate10 Eaves Ridge Pack

For Metric, Slate 10 & DuoPlain

1 | Battening/Setting Out

Underlay and batten the roof, carrying the underlay over the full width of the gable and extending the tiling battens beyond brickwork, bargeboard or gable ladder by 60mm*. Ensure all battens project by the same distance to achieve a straight verge line.

*45mm for DuoPlain tiles.

2 | Batten End Clips

Using the 20 x 2.65mm nails provided, fix a Batten End Clip to each tiling batten.

There are then two alternative methods of fitting the Eaves Closure Unit.

3a | Eaves Closure - Fixing to Fascia Board

Taking an Eaves/Ridge Pack, pass the "L" shaped clip through the "T" shaped slot in the Eaves Closure Unit and turn to suit left or right hand verge.

Ambi-Dry and Dry Verge System

3b | Eaves Closure - Fixing to Fascia Board

Using the nails provided in the Eaves/Ridge Pack, fix the eaves clip to the fascia as shown. At this stage one of two approaches may be adopted:

i) Lay all tiles and fix the Ambi- Dry Verge Units afterwards.

ii) Fix Ambi-Dry Verge Units as the tiles are laid. In either case the procedure is as shown from 5 onwards.

4a | Eaves Closure - Fixing to Barge Board

Fit the Eaves Closure Unit over the first tile in the eaves course.

4b | Eaves Closure - Fixing to Barge Board

Fix into the bargeboard through the two most appropriate holes in the Eaves Closure Unit using the two screws provided. At this stage one of two approaches may be adopted:

i) Lay all tiles and fix the Ambi- Dry Verge Units afterwards.

ii) Fix Ambi-Dry Verge Units as the tiles are laid. In either case the procedure is as shown from 5 onwards.

5 | Laying the Verge

Depending on the hand of the verge, prepare the Ambi-Dry Verge Units by snapping out the relevant section. Picture shows a right hand Ambi-Dry Verge Unit being prepared.

Note: For Slate10 range, use the appropriate LH or RH verge unit.

6 | Laying the Verge

Clip the first Ambi-Dry Verge Unit over the Eaves Closure Unit. Slide the Ambi-Dry Verge Unit in the direction of the ridge until the tail coincides with the tail of the tile. To ensure a straight verge line is achieved, remove 10mm from the edge of the eaves tile at the point where it slots into the Eaves Closure Unit.

7 | Securing the Verge

Ensuring contact with the head of a tile, nail the Ambi- Dry Verge Unit into the Batten End Clip. Nail through the most convenient hole using the 65 x 3.35mm nail provided.

8 | Laying the Verge

Carefully locate the second Ambi-Dry Verge Unit in the slots of the first. Slide the Ambi-Dry Verge Unit in the direction of the ridge until the tail coincides with the tail of a tile. Secure the Ambi- Dry Verge Unit to the Batten End Clip as before. Continue in the same manner to the ridge.

9 | Top Course

Interlock two Ridge Comb Units and slide until fully closed. Offer up to the Verge Unit. Secure the Ridge Comb Units and Verge Units in the top course with a Ridge Clip and fix to the top tiling batten using 25mm long galvanised clout nails.

Ambi-Dry and Dry Verge System

10 | Completion

Complete the ridge/verge junction with a Block-end Ridge Tile or a Ridge End Cap.

Maximum Pitches

Tile Type	Duo Pitch	Mono Pitch
Landmark Double Pantile	67.5°	57.5°
Landmark Double Roman	62.5°	67.5°
Regent	67.5°	52.5°
Grovebury	67.5°	57.5°
50 Double Roman	62.5°	67.5°
Renown	62.5°	65°
Mini Stonewold	67.5°	72.5°
DuoPlain	60.0°	47.5°
Slate10 Range	67.5°	72.5°

There is no maximum pitch on lean-to roofs or where lead roll details are used.

1 | Battening/Setting Out

The tiling battens should end in a perpendicular line and extend 50mm beyond the outer edge of the brickwork or bargeboard. Set out the rest of the roof in the normal manner.

2 | Verge Units

Snap off the bottom upstand return portion of the Verge Unit to form either left or right hand units. The portion to snap is indicated on the inside of the Verge Unit.

3 | Eaves

Position the Eaves Closure Unit in a Verge Unit as shown, with the face printed 'TOP' towards the downstand which has not been snapped off. Ensure the slot of the Eaves Closure Unit engages into the downstand of the Verge Unit, and slide forward until it clicks into position.

4 | Verge/Eaves unit

Position the Verge/Eaves Unit in place ensuring the tiling battens fit in the box section of the Verge Unit. Push an Ambi-Dry Verge Clip through the upper slot on the side of the Verge Unit and fix to the batten using a 25mm long galvanised clout nail.

Ambi-Dry and Dry Verge System

5 | Eaves clip

The Eaves Clip is positioned into the slot in the Eaves Stop End and nailed to the fascia using 25mm galvanised clout nails, ensuring the unit is tight against the verge. (If using Redland RedVent Eaves Ventilation System, nails should be a minimum of 50mm long.) The unit is held securely against the clip when the eave tile is laid.

6 | Laying the Verge

Subsequent units are offered up ensuring the downstand of the Verge Unit is below the clip. The Verge Unit is then slid over the unit below. It is important to ensure the lugs engage top and bottom and the box section fits over the batten. The unit is secured with an Ambi-Dry Verge Clip. The rest of the verge is completed in a similar manner. The verge can be fixed either prior to or during tiling. Install the tiles into the Verge Units, cutting verge tiles only where necessary.

7 | Top course - Ridge clips

Do not fix Ambi-Dry Verge Clips on the top course. The verge at the apex should be completed for opposite roof slopes at the same time. Interlock two Ridge Comb Units and slide until fully closed. Offer up to the Verge Unit on the top courses and slide back over the Verge Unit. Secure the Ridge Comb Units and Verge Units in the top course with a Ridge Clip and fix to the top tiling batten using a 25mm long galvanised clout nail.

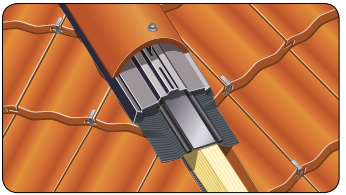
8 | Completion

The Verge is finished with a Universal Angle or Half Round Block End Ridge or a Ridge End Cap (shown).

Maximum Pitch Table	Duo Pitch	Mono Pitch
Cambrian	60°	67.5°
Stonewold II	44°	44°

Notes

Dry Hip System

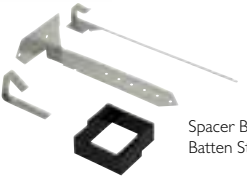


The Dry Hip System has delivered years of trouble free service on tens of thousands of properties throughout the UK. With very high resistance to storm damage and no wet trades required, concerns about mortar failure can be ignored.

Hip Support Tray

Rollable Membrane

Clips and Nails



Spacer Blocks and Batten Straps

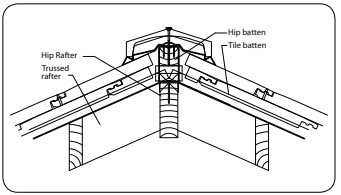
Each pack contains sufficient components to cover 2.7m of concrete hip tiles. Contents vary for Cambrian and DuoPlain packs:

1 x Roll of Membrane
6 x Hip Support Trays
18 x Polypropylene Spacer Blocks
6 x pairs Hip Batten Straps
12 x Hip Head Clips
12 x Hip Tail Clips
12 x 100mm Stainless Steel Woodscrews No. 3 Head
24 x Batten Fixing Nails 2.65 x 30mm
24 x Rafter Fixing Nails 3.35 x 60mm

Product Codes and Descriptions

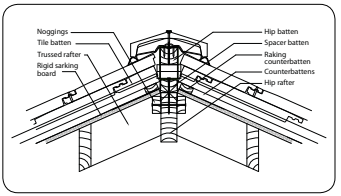
9046 Metric*/Stonewold II Dry Hip Pack
9047 Slate 10 Range/Plain Tile Dry Hip Pack
9048 Natural Slate/Cambrian Slate Dry Hip Pack
9534 DuoPlain Dry Hip Pack

*Metric tiles are Mini Stonewold, Grovebury, 50 Double Roman, Regent and Renown.



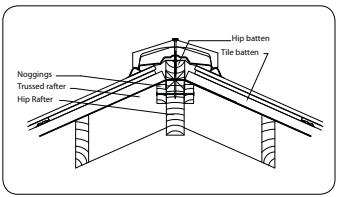
1a | Standard Dry Hip

Underlay and batten the roof with ends of tiling battens supported on the hip rafter.



1b | Dry Hip with Rigid Sarking

Finish sarking board at the side of the hip rafter. Fix a spacer batten to the hip rafter to a height level with the top of the counterbattens. Underlay, counterbatten and batten the roof with the tiling battens supported on the spacer batten.



1c | Cambrian Dry Hip

Fix 50 x 25mm noggings to the sides of the hip rafter. Underlay the roof. Fix a hip batten to the hip rafter at 300mm centres with 100 x 3.75mm ring shank nails provided. Batten the roof with ends supported on noggings. Go to step 5.

2 |

Secure a pair of hip batten straps to the hip rafter using the 3.35 x 60mm stainless steel nails provided. At centres no greater than 550mm, fix the other straps up the length of the hip. Ensure that the first and last straps are fixed no more than 250mm from the fascia or hip/ridge intersections respectively.

Dry Hip System

3

Place the correct number of spacer blocks for the tile (see table below) onto the straps.

Tile Profile	Number of spacer blocks
Regent, Landmark Double Pantile Landmark Double Roman, Grovebury 50 Double Roman	3
Stonewold II, Mini Stonewold Renown, Slate 10 Range, DuoPlain	2

The number of spacer blocks stated assumes that the top of the hip rafter is flush with the top of the jack rafters. Where this is not so, adjust accordingly.

4

Place a timber batten (for size see table on inside flaps of carton) onto the blocks. Where it is necessary to use more than one length of timber, joints should be made over the supporting blocks. Do not fix the batten at this stage.

5

Lay the eaves course of tiles as normal with the eaves overhang equal on both sides of the hip. Neatly cut tiles to the line of the hip batten. The cut edge of the tiles should not be more than 30mm from the hip batten. For Cambrian Slates; each cut slate (for type see table below) must have at least two nails at the head and be clipped where possible.

Slate-and-a-half	25° and above	Double Slate	15° - 24.5°

6

Secure the cut eaves tile on both sides of the hip using two of the "C" shaped clips on the interlock, one at the head and one at the tail of the tile. Continue tiling in the normal manner, ensuring all cut tiles are within 30mm of the hip batten.

7

For the second and subsequent courses, all cut tiles should be secured with two clips. The tail clip (larger of the two clips) should be slid up under the interlock of the last full tile and bent down over the head of the tile in the course below.

8

The "C" clip is then positioned at the head of the cut tile in the region of the interlock. Lay and clip all tiles up the length of the hip.

9

Secure the hip batten in position by wrapping the stainless steel straps around the batten and fix with the 2.65 x 30mm stainless steel clout nails provided.

Dry Hip System

10

Starting from the eaves, dress the Rollable Membrane centrally over the hip batten ensuring all gaps at the eaves are covered. Remove the backing strip from the adhesive section and neatly dress onto the tiles. Adhesion will be improved if the tiles are clean and dry. Continue up the full length of the hip, overlapping each roll by at least 50mm. Continue up and over the ridge batten.

11

Cut one of the hip tile support trays between the eaves cut line indicated. Align the cut edge with the tail of the eaves course of tiles and secure the cut hip tile support to the hip batten with a clout nail placed through the top tab. Carry on clipping uncut hip tile support trays ensuring the tails of the trays are aligned to the line at the head of the fixed support. On reaching the ridge, mitre the supports as shown in diagram 13.

12

Place a purpose designed block end hip tile tight against the eaves tiles and secure with the screws provided. Continue up the hip ensuring the hip tiles are butted together and that no individual hip tile is less than 300mm long.

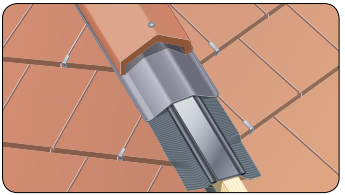
13

Where two hips meet a dry ridge, the intersection should be weathered using the hip/ridge junction piece (supplied separately). The three mitred tiles must be cut from full length tiles. Redrill the cut hip and ridge tiles to provide two fixings per tile. (Other forms of junction may be weathered using Rapid Flashing.)

14

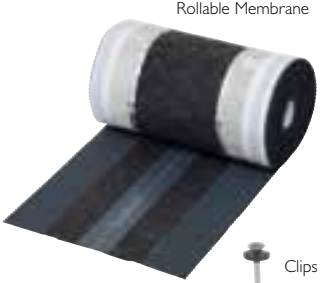
Fix the final ridge tile in position, ensuring the screw passes through the hole in the hip/ridge junction piece and the ridge tile traps the junction piece in place. Fix the final hip tiles in position. If necessary, adjust the height of the hip tiles with a screwdriver to give a true line.

Rapid Hip System



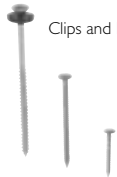
The Rapid Hip System is an easy and quick-to-fit, maintenance-free hip system with very high resistance to storm damage. With no mortar required it removes concerns about mortar failure. The system also ventilates the batten cavity when used with Spirtech underlay.

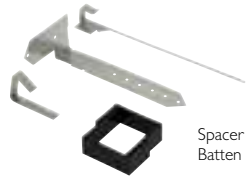
Rollable Membrane



Hip Support Trays 2.7m

Clips and Nails



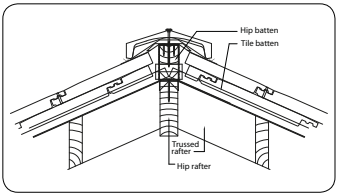


Spacer Block & Batten Strap

Pack contents differ between Rapid Hip packs
5 metres of Rollable Membrane
2 x Hip Support Trays 2.7m
30 x Polypropylene Spacer Blocks
20 x Hip Batten Straps
24 x Hip Head Clips
24 x Hip Tail Clips
24 x Woodscrews 100mm Stainless Steel
40 x Batten Fixing Nails 2.65 x 30mm
40 x Rafter Fixing Nails 3.35 x 60mm

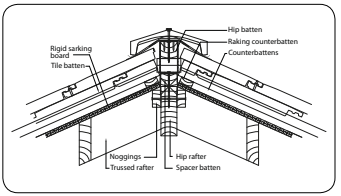
Product Codes
9028 Metric* / Stonewold II Rapid Hip (5m)
9502 Fenland Pantile / Redland 49 Rapid Hip (5m)
9503 Natural Slate / Cambrian Rapid Hip (5m)
9524 Slate 10 Range / Plain Tile Rapid Hip (5m)
9562 DuoPlain Rapid Hip (5m)
9870 Cathedral Rapid Hip (5m)

* Metric tiles are Mini Stonewold, Grovebury, 50 Double Roman, Regent & Renown



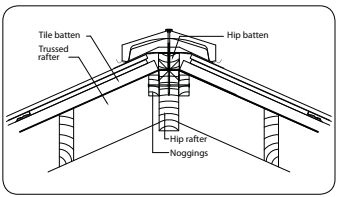
1a | Standard Rapid Hip

Underlay and batten the roof with ends of tiling battens supported on the hip rafter.



1b | Rapid Hip with Rigid Sarking

Finish sarking board at the side of the hip rafter. Fix a spacer batten to the hip rafter to a height level with the top of the counterbattens. Underlay, counterbatten and batten the roof with the tiling battens supported on the spacer batten.



1c | Cambrian Rapid Hip

Fix 50 x 25mm noggings to the sides of the hip rafter. Underlay the roof. Fix a hip batten to the hip rafter at 300mm centres with 100 x 3.75mm ring shank nails provided. Batten the roof with ends supported on noggings. Go to step 5.

2 |

Secure a pair of hip batten straps to the hip rafter using the 3.35 x 60mm stainless steel nails provided. At centres no greater than 550mm, fix the other straps up the length of the hip. Ensure that the first and last straps are fixed no more than 250mm from the fascia or hip/ridge intersections respectively.

Rapid Hip System

3

Place the correct number of spacer blocks for the tile (see table below) onto the straps.

Tile profile	Number of spacer blocks
Stonewold II, Mini Stonewold, 50 Double Roman, Landmark Double Roman, Renown, Slate 10 Range, DuoPlain, Redland 49, Cathedral	2
Regent, Landmark Double Pantile, Grovebury, Fenland Pantile	3

NOTE: The number of spacer blocks stated assumes that the top of the hip rafter is flush with the top of the jack rafters. Where this is not so, adjust accordingly.

4

Place a timber batten (for size see table on inside flaps of carton) onto the blocks. Where it is necessary to use more than one length of timber, joints should be made over the supporting blocks. Do not fix the batten at this stage.

5

Lay the eaves course of tiles as normal with the eaves overhang equal on both sides of the hip. Neatly cut tiles to the line of the hip batten. The cut edge of the tiles should not be more than 30mm from the hip batten. For Cambrian Slates; each cut slate (for type see table below) must have at least two nails at the head and be clipped where possible.

Slate-and-a-half	25° and above	Double Slate	15° - 24.5°

6a | Except Cambrian & Cathedral

Secure the cut eaves tile on both sides of the hip using two of the 'C' shaped clips on the interlock, one at the head and one at the tail of the tile. Continue tiling in the normal manner, ensuring all cut tiles are within 30mm of hip batten.

6a | Cathedral only

Secure each cut tile on both sides of the hip using rafter clips Gently tap the clip onto a convenient part of the cut edge. Screw each rafter clip to the side of the hip batten.

Proceed to Step 9

7 |

For the second and subsequent courses, all cut tiles should be secured with two clips. The tail clip (larger of the two clips) should be slid up under the interlock of the last full tile and bent down over the head of the tile in the course below.

8 |

The 'C' clip is then positioned at the head of the cut tile in the region of the interlock. Lay and clip all tiles up the length of the hip.

Rapid Hip System

9

Secure the hip batten in position by wrapping the stainless steel straps around the batten and fix with the 2.65x30mm stainless steel clout nails provided.

10

Starting from the eaves, dress the Rollable Membrane centrally over the hip batten ensuring all gaps at the eaves are covered. Remove backing strip from the adhesive section and neatly dress onto the tiles. Adhesion will be improved if the tiles are clean and dry. Continue up the full length of the hip, overlapping each roll by at least 50mm. Continue up and over the ridge batten.

11

Cut hip tray to suit at the eaves and secure to the hip batten with a single clout nail at its centre point to hold it in place. Where more than one tray is required to complete the hip, overlap on top of the one already fixed by 200mm. Where two hips meet at the ridge, mitre the hip trays together.

12

Place a purpose designed block end hip tile tight against the eaves tiles and secure with the screws provided. Continue up the hip ensuring the hip tiles are butted together and that no individual hip tile is less than 300mm long.

13

Where two hips meet a dry ridge, the intersection should be weathered using the hip/ridge junction piece (supplied separately). The three mitred tiles must be cut from full length tiles. Re-drill the cut hip and ridge tiles to provide two fixings per tile. (Other forms of junction may be weathered using Rapid Flashing.)

14

Fix the final ridge tile in position, ensuring the screw passes through the hole in the hip/ridge junction piece and the ridge tile traps the junction piece in place. Fix the final hip tiles in position. If necessary, adjust the height of the hip tiles with a screwdriver to give a true line.

Additional Dry and Rapid Hip Instructions for Plain Tiles

Follow the fixing instructions for Dry Hip/Rapid Hip for Slate10 Range on pages 86 - 97 as required, with the following special considerations. Plain tiles should be cut into the Hip to minimise the number of small cut pieces. This is best achieved using Plain Tile-and-a-Halves and running the battens up to the hip.

General Notes

The pitch range for which Dry and Rapid Hip is suitable varies with plan angle and hip tile profile. At certain combinations of pitch and plan angle a supplementary secret gutter may need to be installed to ensure weathertightness of the hip. Please consult Redland Technical Solutions (Tel: 08708 702595) for advice on the suitability of the product for your particular pitch, plan angle and hip tile profile. Dry and Rapid Hip provides a ventilation capacity of at least 5,000mm² per metre run and is suitable for ventilating the batten cavity when used with a vapour permeable underlay. Please consult Redland Technical Solutions for advice on positioning of underlay and counterbattens if using product for batten space ventilation.

1

All perimeter tiles should be mechanically fixed with either nails or clips.

2

Where a tile can not be nailed, the tail clip should be used to mechanically fix the tile piece. Take the tail clip and bend the small up-stand down flat.

3

Bend the end of the Tail Clip over the tile on the course below and slot the cut piece into the clip.

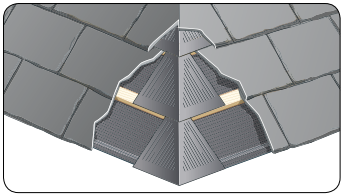
A 'C' shaped clip can also be used to secure small cut pieces. See main fixing instructions in pack.

4

If the maximum gap cannot be achieved with a Plain Tile-and-a-Half or a Plain Tile, then cut the tiles back into the course to reposition the end tile and reduce the gap. Note: Plain tiles must always have a minimum sidelap of 55mm.

Product Code		Dry Hip (9047)		Rapid Hip (9524)	
Hip Batten (mm)		50 x 50	50 x 50	50 x 38	50 x 38
Spacing blocks between hip & hip batten		2	2	2	2
Tile cut distance from hip batten to face of tile		20mm	30mm	20mm	30mm
For 90° Plan Angle:	Minimum pitch Maximum pitch	35° 60°	60° 90°	35° 55°	55° 60°
For 100° Plan Angle	Minimum pitch Maximum pitch	35° 72.5°	72.5° 90°	35° 62.5°	62.5° 72.5°
For 105° Plan Angle:	Minimum pitch Maximum pitch	35° 90°	- -	35° 70°	70° 90°
For 110° Plan Angle or Wider:	Minimum pitch Maximum pitch	35° 90°	- -	35° 90°	- -

Cambrian Mitred Hip System



Specifically designed for use with Cambrian Slates to achieve a neat mitred hip detail, whilst ensuring very high resistance to storm damage over a wide range of rafter pitches and plan angles.

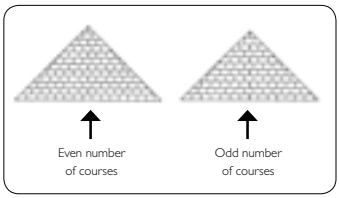
Pack Contents

Contains sufficient components in each pack for 10 courses of tiles.
Weathering Unit (10)
Tail Clip and screws (10)

Product Codes
9504 Cambrian Mitred Hip System

1 |

Underlay and batten the roof in the normal manner. The tiling battens should be carried onto the hip rafter and must meet at the same height and be mitre cut to form a close junction. Where the hip rafter projects above the level of the rafters the cut ends of the battens should be supported on noggings of timber positioned between the rafters.



2 | Number of Courses

If two mitred hips meet at an apex it is useful to finish the final (top) course with a single double slate. This will assist ease of laying and provide the best visual effect. To achieve this on a roof with an even number of courses from eaves to ridge, the eaves course of slates should be laid out so that the centre of a slate is below the apex. For a roof with an odd number ofcourses a slate bond should be positioned below the apex.

3

The first weathering unit should be positioned on the eaves course of battens using the batten locating lugs on the underside of the unit to ensure it is in the correct position. If the battens are supported on noggins and do not meet, ensure the top of the batten and the bottom of the locating lugs are in line. Fix the weathering unit in place with one of the aluminium nails supplied. Position the nail at the top end of the slot.

4

Lay the eaves course of slates nailing and clipping as normal. At the hip, cut a slate-and-a-half or double slate to size as appropriate, ensuring the gap between the cut slates is in the range of 3 to 5 mm.

Slate-and-a-half	45° and above	Double Slate	<45°

5

Using the tail of the slate as a guide cut the weathering unit to length with a sharp knife.

6

The raking cut slates should be fixed at the head with standard Cambrian slate nails. Where the raking cut leaves only one nail hole, a second nail hole (3 to 3.5mm dia.) should be drilled on-site. All cut slates should be secured with at least two head fixings. At times this may involve nailing through the upper section of the weathering unit, this does not affect the weather-tightness of the system.

Cambrian Mitred Hip System

7

The tail of the cut slates is secured using the blackened stainless steel clip and fixing supplied. Position the fixing as close to the tail of the slates as the head of the slates below will allow and secure using a screwdriver. The clip will flatten to accommodate varying pitches; however care should be taken to avoid over tightening which may cause 'cocking' of the cut slate.

8

Position and nail the weathering unit in the second course and mitre slates as before. Trim the unit, again using the tail of the slates as a guide.

Caution: Do not fix slates in position at this point.

9

To prevent the cut slates riding up, pull the unit upwards towards the ridge until the cut slates just drop down onto the slates below.

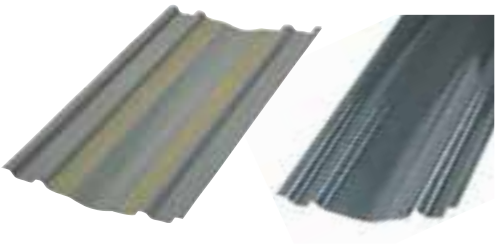
10

Fully fix the slates as before. Repeat the operation for all courses. Depending on the detail a lead or Rapid Flashing saddle may be required to weather-proof the junction at the upper point of the hip. Where the Mitred Hip system is used in combination with the Redland DryVent Ridge system, a block end ridge is available to complete the ridge line. A small piece of DryVent Ridge filler should be positioned beneath the block end ridge to ensure weather tightness.

Notes

125 & Cambrian GRP Valleys

Designed as a cost effective alternative to lead, the 125 & Cambrian GRP Valleys are easy to fix, durable and lightweight. They are ideal for most types of roof design which have a junction between two roof slopes.



GRP Valley

Product Codes and Descriptions
9595 125 GRP Valley (3m)
9553 Cambrian GRP Valley (3m)

Where the roof plan area discharging into the valley is greater than 25m², minimum rafter pitch is 30 degrees.

Product Details

Note: Not to be used where the pitch difference between adjacent slopes is more than 5°.

This table details the amount of overlap required between Valley sections.

Note: A Rapid Flashing saddle will be required at the head of all valleys.

True pitch of valley	Lap
22.5° - 24.5°	200mm
25° - 27°	180mm
27.5° - 29.5°	165mm
30° - 45°	150mm

1

Fix noggings (38/50 x 25mm timber battens) to either side of the rafters adjacent to the valley, approx 300mm in length and set down 19mm, to support 19mm timber board. Cut the board to finish flush with the top of the rafters and approx, 300mm wide on each side, then nail fix to the noggings.

2 |

Cut out a section of timber fascia at the valley, down to the top of the rafter, to allow for the width of the GRP Valley (400mm). Fix 50 x 25mm timber battens down either side of the valley, to support edges of GRP Valley by a min 25mm, and nail fix into the rafters using 65mm batten nails, one per rafter.

4 |

Lay underlay on roof, turn up around the valley batten and secure with clout nails. Alternatively, if using a non-bituminous underlay, first lay a single strip of underlay, full width of the valley boards, up the centre of the valley before fixing the valley support battens. Batten out the roof, cutting the ends of the battens approx 10mm away from the valley batten, and nail fix the ends of the rafters and/or support boards.

5 |

Cut the first section of GRP Valley to correspond with the line of the fascia boards. The facia board will require cutting to suit. Lay the GRP Valley on and between the valley battens, ensuring the first length overhangs the fascia boards by approx 50mm.

6 |

Nail fix GRP Valley to 25mm thick valley support batten with clout nails. At the head of the valley, cut the top section to correspond with the adjacent ridge line, and fix into position.

125 & Cambrian GRP Valleys

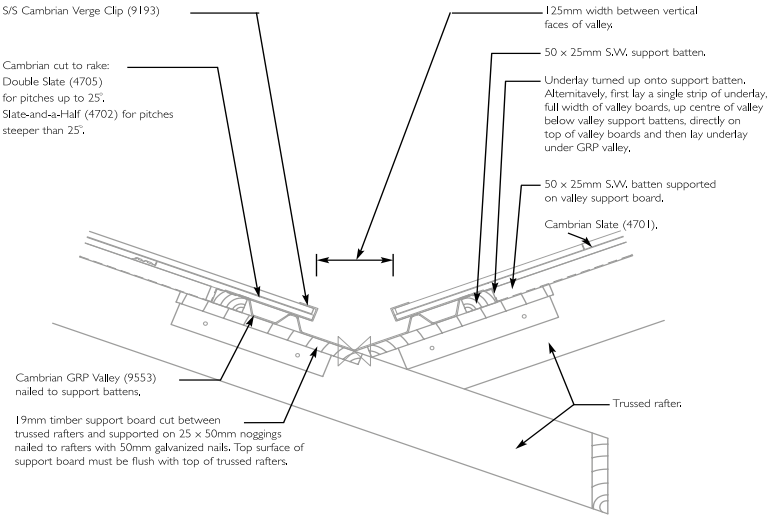
6

a) Cut the tiles to the line of the valley leaving a clear 125mm wide open drainage channel down the centre.

b) Mortar bed tiles onto the pre-sanded strips on the GRP Valley, ensuring the outer Valley channels and tile interlocks are left clear of mortar, (not applicable to Cambrian GRP Valley).

Notes

Cambrian GRP Valley additional fixing instructions



Minimum rafter pitch 17.5° -
Maximum rafter pitch 45°.

1) Lay the GRP Valley on timber support boards, laid between rafters on noggings. At ridge/valley intersections, a Rapid Flashing saddle is required. At eaves, cut the GRP Valley to a 'V' to allow water to flow into gutters. The fascia board will require cutting to suit. Where the valley discharges onto tiling, a lead flashing is required.

2) Working up the roof slope, overlap gutter sections by 150mm for pitches of 40° or more, by 275mm for pitches of 25° or more but less than 40°, or by 350mm for pitches of 17.5° or more but less than 25°. Water flow calculations are advisable to determine the valley size. For valley widths greater than 125mm, lead is recommended. Not to be laid with more than 5° pitch difference between roof slopes.

Note: This product is the only GRP Valley compatible with Redland Cambrian Slates with a valley plan angle of 90°.

Dry Valley

Redland Dry Valley is a mortar free, dry fix valley that is fast to install in any weather conditions providing a neat, mitred finish to a valley.

Product Codes and Descriptions
9575 Dry Valley for Low Profile Tiles
9574 Dry Valley for High Profile Tiles

Pack Contents
1 x 3m Dry Valley

Where the roof plan area discharging into the valley is greater than 25m², minimum rafter pitch is 30 degrees.

1

Fix noggings (38/50 x 25mm timber battens) to either side of the rafters adjacent to the valley, approx 300mm in length and set down 19mm, to support 19mm timber board. Cut the board to finish flush with the top of the rafters and approx, 300mm wide on each side, then nail fix to the noggings.

2

Cut out a section of timber fascia at the valley, down to the top of the rafter, to allow for the width of the GRP Valley (400mm).

3

Line the valley with a single length of underlay to at least the full width of the valley boards. Press the upstand of the Dry Valley together and position it centrally in the valley – pushing down firmly to ensure full contact with valley boards. Nail through the outer flange of the Dry Valley into the valley boards at maximum 500 mm centres.

4

When joining lengths of valley use the recommended minimum overlaps.

Roof Pitch	<22.5°	22.5-29°	30-39°	>39°
Overlap	350mm	300mm	200mm	150mm

5

Mark out the tiles to establish the position of the tile cuts to be made. A line is drawn 2 x Cover Width of Tile away from central upstand of Dry Valley using a straight edge or chalk line. Cut the tiles as required following HSE Guidelines. Repeat the process above for both sides of the valley.

6

Ensure small tile cuts are mechanically fixed using Redland C-clips (9518) and/or Redland Kro-clips (9142). It is recommended 2 x C-clips are used both at the head and tail of the coverlock/interlock tile junction with the adjacent tile, and 1 x Kro-clip is used at the free cut edge of the tile.

Dry Valley

7

The fascia board can be cut to allow the Dry Valley to pass through without flattening the profile, or alternatively, a Rapid Flashing saddle may be used if required.

8

Lay the cut tiles close up to the central upstand of the Dry Valley and complete the tile coursing as normal.

Please visit our website for Plain Tile, flat interlocking and Cambrian Slate installation instructions.

Dry Valley - Eaves and Ridge Sections

1

To prevent birds, insects and rodents from entering it is important to close the cavity at the bottom of the Dry Valley. It is recommended that Redland Kompriband expandable foam tape (9467) is used to close off the cavity as shown in the photo adjacent. Peel off the backing off thesticky side and adhere the Kompriband to the inside bottom of the Dry Valley.

2

The Kompriband foam tape expands to fill the available space closing the cavity at the bottom of the Dry Valley at the eaves.

3

Where two Dry Valleys meet at the top of two valleys, close mitre cut the two Dry Valleys. The junction is then weather-proofed using a section of 370 mm wide Rapid Flashing roll (9957).

See our website for detailed instructions.

Bonding Gutter

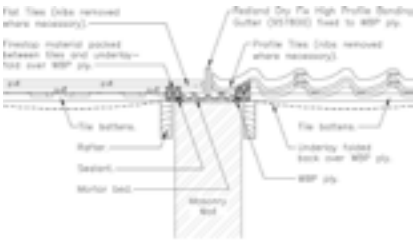
Redland Bonding Gutter is a mortar free, dry fixed gutter designed to weatherproof the junction between two adjacent roof coverings. It is quick and easy to install in all weather conditions and provides a neat finish..

Bonding Gutter
Low Profile

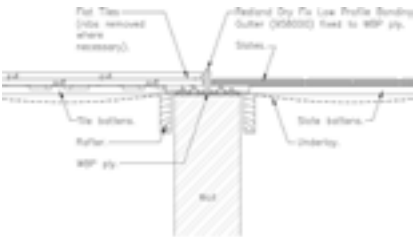
Bonding Gutter
High Profile

Product Codes and Descriptions
9578 Bonding Gutter High Profile
9580 Bonding Gutter Low Profile

Pack Contents
1 x 3m Bonding Gutter



High Profile Bonding Gutter Typical Installation with Fire Break - Flat Tiles and Profile Tiles



Low Profile Bonding Gutter
Typical Installation - Flat Tiles and Slates

For situations where the Bonding Gutter is to be used over non-fire-break walls the underlay can be carried through underneath the bonding gutter but again the tiling battens should be terminated either side of a central 6 mm WBP plyboard, into which the Dry Bonding Gutter is fixed.

1

Establish the position of the Dry Bonding Gutter. Underlay and batten the roof in accordance with the construction details. Position Dry Bonding Gutter onto established line and nail through outer flange into 6 mm WBP ply below at maximum 500 mm centres. When joining lengths of Dry Bonding Gutter use the minimum overlaps specified.

Rafter Pitch	Below 22.5°	22.5-29°	30-39°	Over 39°
Overlap	350 mm	300 mm	200 mm	150 mm

2

The slates and tiles should be laid as close as possible to the central upstand on both sides with care taken to avoid any distortion and maintain the straight line appearance of the profile. Mark the centre line of the Dry Bonding Gutter and remove slates or tiles for cutting as required so as to maintain the correct bond of the slating and tiling.

3

Where the tile nibs interfere with the Dry Bonding Gutter they should be removed.

4

Ensure all tiles and cut tiles adjacent to the Dry Bonding Gutter are mechanically fixed in accordance with the Redland fixing specification for the roof. The standard nails and clips can be used. For half slates and other small cut tiles either Redland C-clip (9518), and/or Redland Kro-clips (9142) can be used. Complete the slating and tiling as required.

Side Abutment GRP Secret Gutter

The Side Abutment GRP Secret Gutter offers a secondary line of defence against wind driven rain where a roof slope abuts a vertical wall. Being easy to cut and install makes this product an ideal solution for these otherwise complicated details. A secret gutter should be used when using any interlocking flat tile or slate.

Product Code and Description
9596 GRP Secret Gutter - 3 metres

1

Finish underlay 50mm up abutment.

Finish tiling battens 55mm from wall and nail fix to final rafter. If final rafter is less than 55mm from wall, fix a supplementary timber noggin (50 x 50mm) to the side of, and flush with, the top of the final rafter to support the battens.

2

Fix timber tilting fillet to support Rapid Flashing outlet at base of secret gutter.

3

Fix Rapid Flashing onto tilt fillet to ensure that water is discharged into the gutter over tiles.

4

Starting at eaves, ensure that the first secret gutter section overlaps the Rapid Flashing outlet by 150mm.

Each secret gutter section should overlap the one below by the length stated in the table below.

Pitch	15° - 17°	17.5° - 22°	22.5° - 29.5°	30°+
Overlap (in mm)	300	250	200	150

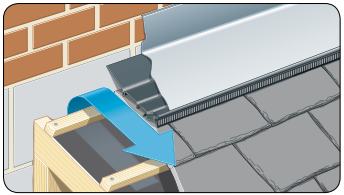
Using clout headed nails, nail the secret gutter to every third tiling batten through 8mm drilled holes.

5

Lay slates or tiles as normal ensuring a maximum gap of 15mm to the wall. It may be necessary to remove the end nib to ensure the tiles sit properly.

Dress Rapid Flashing cover flashing closely over the slates, by not less than 150mm, and up the wall before turning into a brick joint or slot.

Top Edge Abutment Ventilation System



A system that provides a continuous unobstructive ventilation path from the roof void to the outside. It can be installed far quicker than traditional methods.

Support Tray

Profiled Vented Filler Unit
(Regent shown)

Ratchet Clip

Compatible with all Redland profiles with the exception of Redland 49, Fenland Pantile, Postel, Old Hollow and Cathedral. For use with natural/fibre cement slates, please contact Technical Solutions.

Pack Contents

Flat Concrete Tiles, Slate, Clay:

3 Trays, 10 Clips and 7 Vented Filler Units

All other packs:

3 Trays, 10 Clips and 10 Vented Filler Units

Product Codes and Descriptions

9548 Flat Tiles Top Edge Abutment Pack

9541 Landmark Double Pantile/Grovebury Top Edge Abutment Pack

9542 Regent Top Edge Abutment Pack

9543 Landmark Double Roman/50 Double Roman Top Edge Abutment Pack

9544 Renown Top Edge Abutment Pack

1

Fix underlay so that it finishes under top batten (see table for top batten position). Ensure the underlay does not touch the wall at mid point between rafters.

2

To provide the required ventilation, ensure that there is a minimum 10mm gap between the top tile and the face of the wall. For roofs with rigid sarking, ensure sarking boards are laid short of wall by a minimum of 10mm.

3

Take ratchet clip and for profiled tiles fold both wings down at right angles prior to peeling off the protective backing strip.
Important Note: The adhesive material on the underside of the ratchet clip will only adhere to the surface if the tile is dry, clean and dust free.

4

With profiled tiles, carefully centre the ratchet clip over the nail hole position on the top tile, ensuring that the downstand of the clip is tight against the head of the tile. Press the wings firmly down onto the surface of the tile. When using nail holed product, make certain that the centre line of the clip is directly over the nail hole. Fix one clip per tile in all cases except plain tiles where a clip is fixed to every other tile.

5

When fixing plain tiles, locate the clip in the centre of the head of the tile and press firmly into position (Note plain tile top clips must be used when fitting concrete plain tiles.) For all other flat tiles with nail holes, position the centre of the clip over the right-hand nail hole in the tile. For all flat tiles with no nail hole position the clip in the centre of the head of the tile.

Top Edge Abutment Ventilation System

6

When fixing nail holed product, secure the tile by nailing through the centre of the clip into the batten regardless of the clipping specification.

Locate profile filler unit on to the face of the tile and snap ratchet clip hook into one of the ventilated openings Attach all profiled filler units to ratchet clips.

7

Take a tray and locate the underside of the leading edge flush with the edge of the profiled filler units. Press down firmly on the tray so that the channels on the underside of the tray engage into the upstands of the ratchet clip. A 5mm gap should be left between successive lengths of the tray to allow for any thermal expansion.

Depending on the pitch of the roof, the hinged rear section of the tray should be folded back to touch the wall. Continue laying the trays the full length of the abutment, ensuring that any cut lengths of tray are supported by no less than two ratchet clips. Any cut lengths of tray should be positioned in the centre of the abutment.

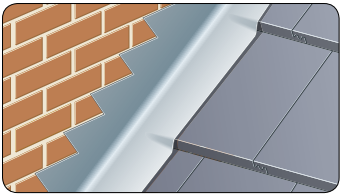
8

Fix lead or Rapid Flashing in lengths not exceeding 1.5 metres, laying it into the trays and ensuring that it is firmly engaged into the channel on the leading edge of the tray. Fix and dress the lead or Rapid Flashing as normal in accordance with LSA or Redland fixing instructions.

Pitch range and top batten distances

Tile & Slate	Range (Degrees)	Top Batten down rafter from wall
Landmark Double Pantile/ Grovebury	15° - 50° 50° - 60°	40mm 30mm
Mini Stonewold/Slate 10 Range/Renown/Landmark Double Roman/50 Double Roman	17.5° - 60°	40mm
Regent	12.5° - 50° over 50° - 60°	40mm 20mm
Cambrian	15° - 60°	20mm
Stonewold II	17.5° - 44°	70mm
Plain Tile/Heathland	35° - 60° 60° - 65° 65° - 67.5°	65mm 90mm 95mm
DuoPlain	25° - 60° 60° - 65° 65° - 67.5°	65mm 90mm 95mm
Rosemary Clay Plain Tile	35° - 60°	40mm
Fontenelle	20° - 60°	40mm

Rapid Flashing



Rapid Flashing can be used instead of lead on the majority of pitched roof applications. The unrivalled speed and ease of installation enables standard flashing details to be completed up to twice as quickly as with lead, offering a viable and safer alternative to traditional methods.

Rapid Flashing Roll Grey

Product Codes

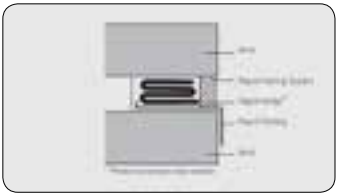
9953 Rapid Flashing Roll (140mm x 5m)
9960 Rapid Flashing Roll (180mm x 5m)
9955 Rapid Flashing Roll (280mm x 5m)
9956 Rapid Flashing Roll (280mm x 10m)
9957 Rapid Flashing Roll (370mm x 5m)
9959 Rapid Flashing Roll (560mm x 5m)

Accessories

9929 Rapid Flashing M-Glue (290ml)
9930 Rapid Flashing Butyl Roll (20mm x 20m)
9994 Rapid Flashing Roller (Metal)
9995 Rapid Flashing Sealant (310ml tube)
9998 Rapid Flashing Strip (4 x 1.25m)

Fixing with Rapid Flashing Strip

For fixing to rendered walls or instead of chasing into brickwork. Install Rapid Flashing with a 65mm upstand. Place the Rapid Flashing Strip over the top edge. Fix in place through all screw holes. Seal top edge with a bead of Rapid Flashing Sealant.



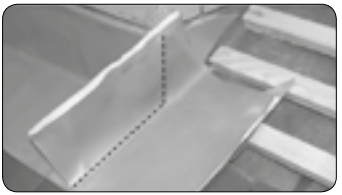
Wedges for Traditional Step Flashing

Wedges are strips of Rapid Flashing folded several times to suit the thickness of brickwork joint. Wedges are used to retain the step flashing in place until finished with Rapid Flashing Sealant. The wedges are driven into place by a wooden plugging chisel so as not to damage the Rapid Flashing.

AROUND CHIMNEYS OR ABUTMENTS (TRADITIONAL STEP FLASHING)

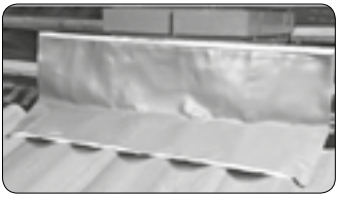
1 |

Fold the top section around the corner of the side abutment/chimney and form into the brick joint. Fold the lower section down onto the tiles.



2 |

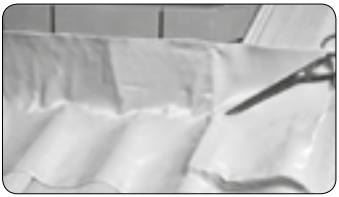
Cut a piece of Rapid Flashing 300mm long to finish off the front apron. Mark out 15mm from the corner of the chimney and draw a line vertically then down the line of the tiles. Cut this piece out.



3 | Profile Tiles

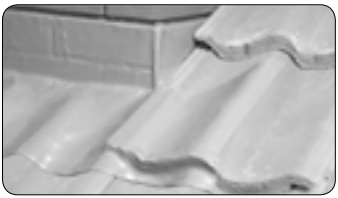
Cut a piece of Rapid Flashing so that it extends either side of the side abutment/chimney by minimum 150mm or over a full pan and roll whichever is the greater and has a minimum upstand of 65mm. The flashing should extend over the tiles by min of 90mm.

Rapid Flashing



4

Lay next course of tiling. Fold material into the profile of the tile and stick the base down. To form the corner, cut from the outside corner diagonally to the side abutment/chimney corner, stopping short by 15mm.

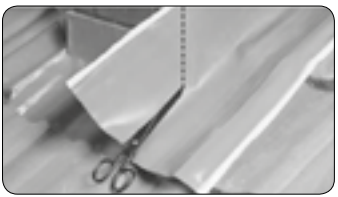


5

Return the top section around the side abutment/chimney. Fold into brickwork forming a cup shape in the brick joint. Fold the lower section down onto the tile, form into the profile of the tile and stick down.

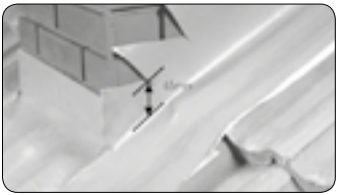
6

Cut a piece of Rapid Flashing to the length of the side abutment/chimney. Ensure that the bottom edge is lined up with the bottom of the apron. The top edge should extend beyond the back of the side abutment/chimney by 35mm.



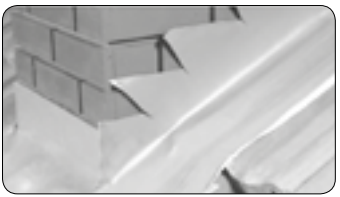
7

Place side piece so that it covers the tile by 150mm or by one pan and roll, whichever is greater. Mark out 15mm from the corner of the chimney, draw a line down vertically, then down the line of tiles, leaving 15mm extra material on both edges. Cut this piece out.



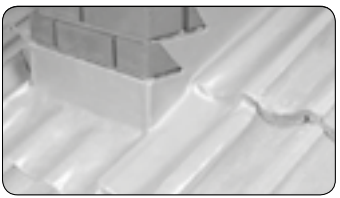
8

Form the step as you do with lead. With the step the same angle as the roof pitch, cut back to the water line (65mm). Ensure at least 25mm excess is left to be turned into the brickwork joint.



9

Once the steps have been cut start moulding the flashing to the profile of the tile. Return the 15mm upstand around the front of the side abutment/chimney to form the front corner. Use a roller if necessary to seal the seam.



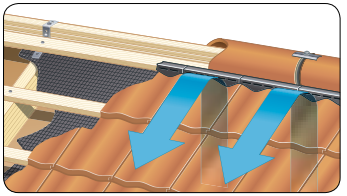
10

Once steps have been turned into the brick joints, peel off protective strip and mould into the profile of the tile. Once finished use a Rapid Flashing Sealant to bed the joints in.

Note:

- For additional details and applications please see our website.
- For Slate range a secret gutter must be incorporated.
- For Plain tile range use soakers instead of cover flashing.
- Overlap sections of Rapid Flashing by min 30mm.

DryVent Ridge System



Provides a continuous, weathertight ventilation path from the roof void to the outside that is an exceptionally durable method of securing ridge tiles. It is maintenance free and requires no mortar, delivering high resistance to storm damage.

Pack Contents	Number of units per pack				Coverage (m)	
DryVent Ridge Pack (DuoRidge Only)	DryVent Filler Units	Batten fixing Strap	Ridge to ridge seal assembly	2.65 x 30mm S/S ring shank nail	Filler Units	Pack
9058 Slate Range and Plain Tiles with Half Round Ridge Tile	12	6	6	12	0.45	2.7
9056 Rosemary Clay	8	4	6	8	0.45	1.8
9094 Grovebury, Landmark Double Pantile 9095 50 Double Roman, Landmark Double Roman 9096 Regent 9097 Renown	18	6	6	12	0.3	2.7
9059 Slate Range and Plain Tiles with Universal Angle Ridge Tile	12	6	6	12	0.45	2.7
9085 Ornamental RidgeTiles with Universal Angle Ridge Tile	12	6	6	12	0.45	2.7

Ridge to Ridge seal with clamping plate and screw (Half round shown)

Ridge Batten Strap

Profile Filler Unit (Double Roman shown)

1

1a. Lay underlay and batten the roof in the normal manner. For a non-vented ridge, underlay should be dressed over the apex by no less than 150mm. For a vented ridge, underlay should be left 30mm short of the apex on either side of the roof.

1b. With Rigid Sarking, batten the roof in the normal manner. Ensure that the rigid sarking is left short of the apex to allow a 10 mm gap. Also, the counterbattens must be extended to form an apex to support the ridge tree batten.

1c. Do not fix the top tiling battens at this stage.

2

Hold the batten fixing strap so that the metal ridges are on top. Bend the strap downwards on both sides where marked "1", to form a U-shape. Position the ridge batten so it lies along the centre of the apex. Ensure nails used to secure ridge battens together are located mid span of rafters.

Place strap over the timber ridge batten. The height of the ridge batten varies according to roof tile, ridge tile and roof pitch, refer to the pitch range and batten height table.

The ridge batten should finish flush with the outer face of the gable end, except when using Dry Verge when the batten should project 50mm beyond the gable.

3

Fold the sides of the strap so they lie flat against the trusses.

Using the two 30mm stainless steel angular ring shank nails provided, nail the strap to the rafter through the nail hole directly below the fold, one each side. Drive the nails as far into the rafters as possible so the strap is not slack.

DryVent Ridge System

4

Fix a batten strap to each rafter or counterbatten.
Fix the top tiling battens on either side of the apex. the battens should be fixed down from the apex according to the following table:

Cambrian	Stonewold II	Plain	Rosemary	All Profiles	All Slates	DuoPlain
30mm	90mm	70mm	35mm top batten 75mm 2nd batten	55mm	60mm	40mm

Tiling batten nails should be driven through the strap into the rafter or counterbatten.

Lay and fix roof tiles in accordance with the Redland fixing specification.

5

Lay Profile Filler Units along the roof tiles, snapping them together on either side of the ridge to receive the ridge tiles. If necessary, cut the final filler units to suit the ridge length. On gable end roofs, use a block-end ridge tile as the first ridge tile.

6

Slide the first ridge to ridge seal under the open end of the first ridge tile, ensuring that the full width of the seal is located in the trough of the Profile Filler Units.

7

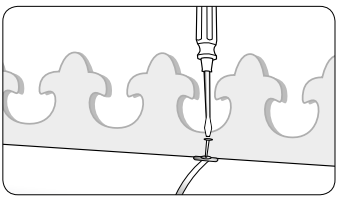
Slide the next ridge tile over the ridge to ridge seal ensuring the clamp plate is parallel to the ridge line. Screw centrally into the ridge batten. Continue laying and fixing ridge tiles and ridge components along the ridge line.

8

On gable end roofs, finish with a second block-end ridge tile. Fix the screw provided through the hole in the top of the tile into the ridge batten. On hip end roofs, carefully drill a 6mm diameter hole, 100mm in from the end of the last ridge tile and secure using the screw provided. Packs of additional screws are available separately.

9

When using a Cloaked Verge at the left-hand verge, cut a Profile Filler Unit along the line indicated and snap on the smaller piece to the final Profile Filler Unit to fill the open end.



10

When using ornamental ridges, slide the ornamental ridge tiles over the ridge to ridge seal and tighten. On gable end roofs, finish the ridge line with an ornamental block-end ridge tile and secure using the screw provided. On hip end roofs, finish the ridge line by carefully mitre cutting an ornamental block-end ridge tile and secure using the screw provided.

DryVent Ridge System

PITCH RANGE AND RIDGE BATTEN HEIGHT FOR DRYVENT RIDGE SYSTEMS
(38 mm Ridge Batten Width)

Tile/Slate	Rafter Pitch (Degrees)									
	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5
Half Round	Batten Height (mm)									
Cambrian Slate	50	50	50	50	25	25	25	25	25	25
Slate 10 Range	-	50	50	50	50	50	25	25	25	25
Stonewold II	-	75	50	50	50	50	50	50	25	25
Mini Stonewold	-	75	50	50	50	50	50	50	25	25
Heathland	-	-	-	-	-	-	-	-	50	25
Plain Tile	-	-	-	-	-	-	-	-	50	25
DuoPlain	-	-	-	-	50	50	50	50	25	25
Landmark Double Pantile/ Grovebury	100	100	75	75	75	75	75	75	50	50
Landmark Double Roman/50 Double Roman	-	75	75	75	75	50	50	50	50	50
Regent	100	100	100	75	75	75	75	75	75	50
Renown	-	75	75	50	50	50	50	50	50	25
Natural Slate	-	-	-	-	25	25	25	25	25	25
Fontenelle	-	-	75	75	50	50	50	50	50	50
Universal Angle										
Cambrian Slate	50	50	50	50	50	25	25	25	25	25
Slate 10 Range	-	75	50	50	50	50	50	25	25	25
Stonewold II	-	75	75	50	50	50	50	50	25	25
Mini Stonewold	-	75	75	75	50	50	50	50	25	25
Plain Tile	-	-	-	-	-	-	-	-	50	25
Natural Slate	-	-	-	-	25	25	25	25	25	25
Rosemary Half Round										
Cambrian Slate	75	75	75	75	75	75	50	50	50	50
Slate 10 Range	-	75	75	75	75	75	50	75	50	50
Rosemary Clay	-	-	-	-	-	-	-	-	75	75
Natural Slate	-	-	-	-	75	50	50	50	50	50
Fontenelle	-	-	100	100	100	75	75	75	75	75
Rosemary Craftsman	-	-	-	-	-	-	-	-	75	75

*44 degree Maximum Pitch

40	42.5	45	47.5	50	52.5	55	57.5	60	62.5	65	67.5	70
25	25	25	25	25	25	-	-	-	-	-	-	-
25	25	25	25	25	-	-	-	-	-	-	-	-
25	25	25*	-	-	-	-	-	-	-	-	-	-
25	25	25	25	25	25	25	-	-	-	-	-	-
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50	50	50	50	50	50	-	-	-	-	-	-	-
50	25	25	25	25	25	-	-	-	-	-	-	-
50	50	50	50	50	50	-	-	-	-	-	-	-
25	25	25	25	25	25	-	-	-	-	-	-	-
25	25	25	25	25	-	-	-	-	-	-	-	-
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25	25	25	25	-	-	-	-	-	-	-	-	-
25	25	25	25	25	-	-	-	-	-	-	-	-
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75	50	50	50	50	50	25	25	25	25	25	25	25
25	25	25	25	25	25	25	-	-	-	-	-	-
75	50	50	50	50	25	25	25	25	25	25	25	25
75	50	50	50	50	50	25	25	25	25	25	25	25

Rapid Vented Ridge System

The Rapid Vented Ridge System is a cost effective solution for providing both high-level ventilation and mechanically fixed ridge tiles. The system is a genuine alternative to a mortar bedded ridge with the added advantage of being quicker and easier to fix.

Ridge to Ridge Seal Assemblies (Universal Angle shown)

Rollable Membrane

Stainless Steel Batten Straps (including nails)

Pack Contents

Product Codes and Descriptions:

9302 Half Round Rapid Vented Ridge (Flat Tiles)
9304 Half Round Rapid Vented Ridge (Profile Tiles)
9308 Universal Angle Rapid Vented Ridge

Pack Contents:

5m Rollable Membrane
11 Ridge to Ridge Seal Assemblies
9 Stainless Steel Batten Straps
18 Stainless Steel ARS 30 x 2.65mm Nails
2 End Ridge Fixings

1

Lay underlay and batten roof in the normal manner. Leave underlay 30mm short of the apex on either side of the roof. Ensure any rigid sarking is left short of the apex to allow a 10mm gap and counterbattens are extended to form an apex. Do not fix the top tiling batten at this stage. Use a combination of 38mm x 25mm softwood battens to achieve the correct ridge batten height (see table overleaf) and nail them together at the same centres as the rafters with 65mm nails.

2 |

Position the ridge batten along the centreline of the apex. Ensure nails used to secure ridge batten together are located mid span of rafters. Bend ridge batten straps to the correct height settings, and nail at each rafter, with two 30 x 2.65mm annular ring shank nails provided. Fix top tiling batten using table on page 128 to determine its distance from the apex of the roof.

3 |

Lay tiles/slates on the battens, including all dry verge, or mortar bedded verge tiles/slates. It is essential that the tiles/slates are dry and free from dust and any other surface contamination. Secure the top course of tiles/slates to comply with the fixing recommendation.

4 |

Roll out the Rollable Membrane along the centreline of the ridge batten, and tack to the ridge batten with a staple or underlay nail. Strip off the protective tape from the adhesive strip and mould the crimped edge onto the surface of the tiles/slates to produce a continuous surface contact. If a dry verge system is being used go to 5a. If the verge is mortar bedded go to 6a.

5a | Dry Verge

The ridge batten should be finished inline with the end of the tiling battens. The Rollable Membrane should be neatly rolled down the vertical face of the dry verge and tucked back under the verge system.

Rapid Vented Ridge System

5b |

The block-end ridge tile should be installed tight against the dry verge system whilst ensuring that the fixing screw lines up with the centreline of the ridge batten. Using the screw, washer and plate provided, use a Pozidrive no 3 screw bit and tighten the washer until it will not turn between the fingers.

6a | Mortar Bedded Verge

Note:

a. The ridge batten should finish 100mm back from the flush face of the mortar. The Rollable Membrane should be cut 50mm back from the face of the mortar.

b. Drill from the underside of the ridge tile a 6mm diameter hole centrally. Install the end of the ridge tile onto the verge mortar bedding using the screw, washer and plate provided. Screw using a Pozidrive no 3 screw bit until the washer will not turn between the fingers. Point the mortar in the usual manner.

7 |

Place a ridge to ridge seal and plate between each pair of adjacent ridge tiles. Ensure that the ridge tiles are butted up tight to the seal with the plate on top of the ridge tiles and that the ridge tiles line up with the centreline of the ridge batten. Screw the preinstalled ridge fixing screw into the centre of the ridge batten, until the washer will not turn between the fingers.

Pitch Range and Ridge Batten Height for Rapid Vented Ridge System (38mm wide ridge batten)

Roof Pitch (degrees)	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5
Half Round																			
Landmark Double Pantile	-	75	75	75	75	75	75	75	75	50	50	50	50	50	50	50	50	50	-
Grovebury	-	75	75	75	75	75	75	75	75	50	50	50	50	50	50	50	50	50	-
Landmark Double Roman	-	-	75	75	75	50	50	50	50	50	50	50	50	50	50	25	25	-	-
50 Double Roman	-	-	75	75	75	50	50	50	50	50	50	50	50	50	50	25	25	-	-
Regent	100	75	75	75	75	75	75	75	75	75	75	50	50	50	50	-	-	-	-
Renown	-	-	75	50	50	50	50	50	50	50	50	50	50	25	25	25	25	25	-
Norfolk Pantile	-	-	75	75	75	75	75	75	75	75	75	75	50	50	50	-	-	-	-
Redland 49	-	-	50	50	50	50	50	50	50	50	50	25	25	25	25	25	25	-	-
Cathedral Clay Pantile	-	-	-	-	75	75	75	75	75	75	50	50	20	50	50	50	-	-	-
Cambrian	-	50	50	50	50	25	25	25	25	25	25	25	25	25	-	-	-	-	-
Slate 10 Range	-	-	-	-	50	50	50	50	50	50	50	25	25	25	25	25	25	25	-
Stonewold II	-	-	75	50	50	50	50	50	50	25	25	25	25	25*	-	-	-	-	-
Mini Stonewold	-	-	75	50	50	50	50	25	25	25	25	25	25	25	25	25	25	-	-
Plain Tile	-	-	-	-	-	-	-	-	-	25	25	25	25	25	25	25	25	25	25
DuoPlain	-	-	-	-	-	50	50	50	50	50	50	50	25	25	25	25	25	25	-
Natural Slate#	-	-	-	-	-	50	50	25	25	25	25	25	25	25	-	-	-	-	-
Universal Angle																			
Cambrian	-	50	50	50	50	50	25	25	25	25	25	25	25	25	--	-	-	-	-
Slate 10 Range	-	-	-	-	50	50	50	50	50	50	50	25	25	25	25	25	-	-	-
Stonewold II	-	-	75	75	50	50	50	50	50	25	25	25	25	25*	-	-	-	-	-
Mini Stonewold	-	-	50	50	50	50	50	50	25	25	25	25	25	25	25	25	25	-	-
Plain Tile	-	-	-	-	-	-	-	-	-	50	25	25	25	25	25	25	25	25	25
Natural Slate#	-	-	-	-	-	50	50	25	25	25	25	25	25	-	-	-	-	-	-

* 44° Maximum Pitch.

Cathedral Clay Pantile uses Landmark concrete ridge tiles.

Pitches between those shown use taller Ridge Batten Height.

For Top Batten distance from Apex please refer to the relevant product Fitting Instructions.

500 x 250mm Standard Pre-Holed at 195mm from head. Pitch range depends upon exposure level.

For pitches outside above range please contact Technical Solutions.

Rapid Vented Ridge System

Tile and Slate Type	Top Tiling Batten Position From Apex
Cambrian, DuoPlain	40mm
Rosemary	Top Batten 35mm 2nd Batten 75mm
Fenland Pantile	40mm
Landmark Double Pantile, Landmark Double Roman, Regent, Grovebury, Double Roman, Renown, Redland 49	45mm
Slate 10 Range	50mm
Concrete Plain Tiles	60mm
Stonewold II	80mm

Additional Instructions

Joining Rollable Membrane
When joining two pieces of Rollable Membrane, one must overlap the other by a minimum of 50mm.

Cut Ridge Tiles
The ridge tiles for a distance of 900mm from the ridge end should not be cut. Any cut ridge tile should not be less than 150mm long. If the distance to be made up is less than 150mm, then two ridge tiles should be cut.

Ornamental Ridge
Remove the nail plates from the ridge to ridge seal assemblies and flatten with a hammer. Reassemble the ridge to ridge seals and proceed as per the instructions overleaf.

Abutments
At an abutment such as a chimney, the Rollable Membrane should be turned up the wall by 50mm; the ridge tile should be drilled as per item 6b and screwed onto the ridge batten. A lead or Rapid Flashing saddle should be installed over the ridge tile as per Redland or the Lead Sheet Association's recommendations.

Hip Junctions
The procedure for weathering a hip junction is detailed in the fixing instructions that accompany the Rapid Hip system.

L Shape Buildings
At the ridge and hip intersections of an L shape building, the Rollable Membrane should be lapped prior to the lead or Rapid Flashing saddle being installed. The edges of the saddle under the ridge and hip tiles should be welted. The end ridge tiles should be mitre cut prior to drilling as shown in 6b.

T Shaped Buildings
At the ridge intersection of a T shape building, or where a dormer intersects a roof slope, the ridge construction should not cross the valley construction. The lead or Rapid Flashing saddle should be installed onto the valley construction prior to the roof tiles being laid. The Rollable Membrane should be rolled out along the head of the T shape with the crimped edge adhered to the surface of the saddle. Where a dry verge system is not being used, the Rollable Membrane on the leg of the T shape building, or where the dormer ridge meets the valley, should finish 50mm back from the face of the mortar bedding. The end ridge tile should be fixed as per item 6b.

Gas Flues
Gas Flue Ridge Terminals are not compatible with Rapid Vented Ridge or Uni-Vent Rapid Ridge/Hip.

Notes

Uni-Vent Rapid Ridge/Hip

Uni-Vent Rapid Ridge/Hip is a simple and quick to install system providing a secure, weathertight and mortar-free universal solution for the mechanical fixing of ridge and hip tiles. The system is suitable for most flat and profile interlocking tiles, slates and plain tiles.

Universal Flexi Seals

Rollable Membrane

Rapid Hip Support Tray

Kro-clips

Pack Contents (9313)
17 x Stainless Steel Batten Straps, inc nails
22 x Universal Flexi Seals with 100 x 4mm woodscrews, washers and clamping plates
10m Rollable membrane roll

Extra Components (available separately)
9312 Universal Flexi Seals (6)
9567 UA Clamping Plates (6)
9584 100 x 4mm woodscrews & washers (6)
9069 Rapid Hip Support Tray
9142 Kro-clips (for small cut tiles)

Stainless Steel Batten Straps

1

Ridge: Build-up a ridge batten using 38 x 25 mm tiling battens to a height to give at least 15 mm penetration of a 100 x 4mm wood screw into the ridge batten. If finishing at a gable-end where used in conjunction with a dry verge the ridge batten should be finished 25 mm beyond the end of the tiling battens. Leave underlay 30 mm short of apex on both sides of the ridge. If rigid sarking is used, leave short of apex on both sides of ridge to allow a 10mm gap and counter battens are extended to form an apex.
Do not fix the top tiling batten at this stage.

Hip: Build-up 38 x 25 mm or 50 x 25 mm tiling battens to a height such that hip tray (if used) rests on the hip batten and slates and tiles either side of the hip (Note: If hip tray is not used then hip batten is built up to a height such that at least 15 mm penetration of wood screws into hip batten is achieved when the hip tiles are screwed down to the slates and tiles either side of the hip.

2

Secure the built-up tiling battens to ridge and hip by wrapping batten straps tightly around battens and mechanically fixing to every rafter intersection using 30 x 2.65 mm stainless steel annular ring shanked nails. Ensure nails pinch the batten strap tightly against the ridge/hip batten at the base. Use two nails on each rafter either side of the ridge/hip.

Fix the top tiling batten after the batten straps have been fixed both at ridge and hip. For top tiling batten position at ridge see Table of Top Tile Batten Positions. Ensure all the remaining tiling battens are fixed at the correct gauge and that the ends of the tiling battens where they meet the hip batten are supported.

3

Nail the built-up tiling battens together through the upper hole in the batten strap using 65 x 3.35 mm galvanised steel nails. A longer nail may be required in special circumstances depending on the number of tiling battens used to form the ridge/hip batten (a 65 mm long nail is adequate for three 25 mm thick battens).

4

Lay and mechanically fix the slates and tiles as per Redland's fixing recommendations. Ensure small tile cuts that cannot be mechanically fixed in the normal way at hips are secured using a single Redland Kro-clip on the cut edge of the tile. Try to keep the length of wire between Kro-clip and securing ring-shanked nail as short as possible. On the left side of a hip where the cut tile is not supported by the adjacent tile at the head fix the Kro-clip near head of cut tile and secure wire and nail above the cut tile to the hip batten so that cut tile is raised at the head to avoid gapping with adjacent tile cover-lock.

Uni-Vent Rapid Ridge/Hip

5

Ensure that the slates and tiles are dry and free from dust and any other surface contamination.
Lay rollable membrane centrally along the ridge or hip batten with a staple or underlay nail. Tack to the ridge/hip batten. Remove the protective backing from the butyl edge sealing strip and dress the crimped edges of the rollable membrane neatly down onto the surface of the slates and tiles either side of the ridge/hip to produce a continuous surface contact. Where a ridge meets a dry verge the rollable membrane should be neatly rolled down the vertical face of the dry verge and tucked back under the verge system.

6

Where the hip intersects with a ridge ensure the rollable membrane on the ridge overlaps the rollable membrane on the hip by a minimum 50mm.

7

A Rapid Hip Support Tray can be used to support the hip tiles keeping the hip tiles straight and level when screw-fixing to the hip. This is not required for concrete or clay plain tiles and optional for flat interlocking tiles depending on setting out of hip tiles. However, a Rapid Hip Support Tray is recommended for profile interlocking tiles. Where used, cut the hip tray to suit at eaves and secure to the hip batten with a single clout nail at its centre point to hold it in place. Where more than one tray is required to complete the hip, overlap on top of the one already fixed by 200mm. Where two hips meet at the ridge, mitre the hip trays together.

8

Secure the ridge/hip tiles to the ridge/hip batten using the wood screws and clamping plates. Place a Flexi Seal and clamping plate assembly between each pair of adjacent ridge/hip tiles. Ensure that the ridge/hip tiles are butted up tight to the seal with the clamping plate on top of the ridge/hip tiles and that the ridge/hip tiles line up with the centreline of the ridge/hip batten.

Depending on the profile of the ridge/hip tile the ends of the Universal Flexi Seal can be trimmed to suit. Screw the fixing screw into the centre of the ridge/hip batten, until the washer will not turn between the fingers. Where two hips meet at the ridge (at a plan angle of 90 degrees), the intersection should be weathered using a hip/ridge junction piece (supplied separately). The three mitred tiles must be cut from full length tiles.

Re-drill the cut hip and ridge tiles to provide an additional fixing per tile using 100 x 4mm woodscrews with washers. Fix the final ridge tile in position, ensuring the additional screw passes through the hole in the hip/ridge junction piece and the ridge tile traps the junction piece in place. Fix the final hip tile in position using an additional screw and washer similarly at the head of the hip tile.

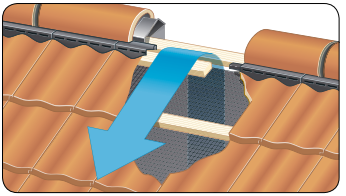
9

Continue along the ridge/hip ensuring the ridge/hip tiles and seal assemblies are butted together tightly and screwed to the ridge/hip batten and that no individual ridge/hip tile is less than 300mm long. Cut ridge/hip tiles should not be within 900mm of the ridge/hip end.

Where a ridge meets a dry verge the block-end ridge tile should be installed tight against the dry verge system while ensuring that the fixing screw lines up with the centreline of the ridge batten.

The end of the hip is finished using a purpose designed Block End Hip Tile. The Block End Hip Tile is finished flush with the eaves course of slates and tiles and secured with an additional wood screw and washer at the tail of the Block-End Hip Tile as shown. If necessary, adjust the height of the ridge/hip tiles with a screwdriver to give a true line.

DryVent Monoridge System



The DryVent Monoridge System provides a continuous weathertight ventilation path from the roof void to the outside. The mechanically fixed system complies with the requirements of the Building Regulations.

Ridge-to-Ridge Seal

Profile Filler Unit
(Renown shown)

No. 8 x 50mm S/S
Woodscrews

Product Codes and Descriptions

9079 Regent DryVent Monoridge
9080 Landmark Double Pantile/Grovebury DryVent Monoridge
9081 Renown DryVent Monoridge
9082 Landmark Double Roman/50 Double Roman DryVent Monoridge
9084 Flat Tiles DryVent Monoridge

DryVent Monoridge Pack Contents	Regent/Grovebury/Landmark Double Pantile/Renown 50 Double Roman Landmark Double Roman	Flat Tiles
Vented Profile Filler Unit	9	6
Ridge to Ridge Seal	6	6
No 8 x 50mm S/S Woodscrew	12	12
Neoprene Washer	12	12

Each pack contains sufficient components to fix 6 monoridge tiles (2.7m)

1

Lay underlay and batten the roof in the normal manner. For a non-vented system, underlay should be dressed over the apex by not less than 150mm. For a vented system, underlay should be left 20mm short of the top of the rafters. If using rigid sarking, ensure rigid sarking, counterbattens and underlay are left short of the apex to allow a 10mm gap.

2

Fix the top tiling batten according to the following table:

MAXIMUM PITCH & TOP BATTEN DISTANCE FOR DRYVENT MONORIDGE			
DETAILS	Top batten Distance (mm) Maximum	Maximum Pitch (Degrees)	
	Under 35° / 35° and over	Half Round	Universal Angle
Landmark Double Pantile / Grovebury	35 / 10	47.5°	-
All other Profiles	35 / 10	45.0°	-
Cambrian	5	42.5°	50.0°
Stonewold II	40	44.0°	44.0°
Mini Stonewold	15	47.5°	52.5°
Slate 10 Range	15	42.5°	50.0°
DuoPlain	25	47.5°	-
Plain Tile	35	55.0°	60.0°
Heathland	35	55.0°	-
Rosemary Clay (Concrete Ridge)	1st batten 10, 2nd batten 50	55.0°	-
Fontenelle (Concrete Ridge)	25	47.5°	47.5°

3

Fix a 25mm thick continuous ridge batten to the back of the rafters. Lay and fix tiles in accordance with manufacturers fixing specification.

DryVent Monoridge System

4 |

Lay Profile Filler Units along the roof tiles snapping them together to receive the Monoridge tiles. If necessary, cut the filler unit to suit the ridge length.

5 |

Fold leg of Ridge to Ridge seal as above and slide under the open end of the first and subsequent Monoridge tiles.

6 |

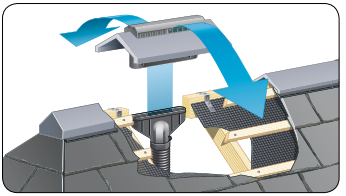
Fix each concrete Monoridge tile with two woodscrews and neoprene washers supplied, screwing into the ridge batten. Slide the next Monoridge tile over the Ridge to Ridge seal. Continue laying and fixing Monoridge tiles and DryVent Monoridge components along the ridge line. When cutting Monoridge tiles to length, ensure a clean-cut face is achieved to abut closely against the seals.

7 |

On gable end roofs, use left hand and/or right hand block end Monoridge tiles. Cut Monoridge tiles should not be less than 200mm long and should not be fixed within 450mm of the end of a ridge line. Carefully drill a 6mm diameter hole, 30mm in from the end of cut Monoridge tiles. When using Cloaked Verge at the left-hand verge, cut a Profile Filler Unit to fill the open end.

Notes

Ridge Ventilation Terminal



The Ridge Ventilation Terminal can be used for soil pipe, roof space ventilation or mechanical extraction. It can be incorporated into a dry or mortar bedded ridge.

Ridge Vent Terminal (Universal Angle shown)

Terminal Adaptor (9175)

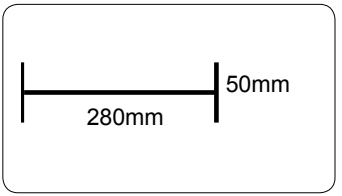
Flexipipe (9172)

Product Codes

7253 Half Round Ridge Vent
7254 Universal Angle Ridge Vent
7402 DuoPlain Ridge Vent
7678 Heathland Half Round Ridge Vent
8330 Landmark Uni Angle Ridge Vent
8310 Landmark Half Round Ridge Vent
8486 Rosemary Ridge Vent

1

For DryVent Ridge remove a 280 mm section of the ridge batten equi-distant between rafters. For traditional construction, remove a 280 mm section of the ridge board, ensuring that trimmer boards are then fitted on each side of the ridge and secured to adjacent rafters to maintain the structural strength of the roof.



2

For mortar bedded ridge, mark the underlay with chalk, as shown, centrally between rafters.

3

Cut the underlay along the chalk lines with a sharp knife. If sarking is also present, a section of this must also be removed to provide a clear 280 x 50 mm path into the roof space.

4

Place the Terminal through the hole in the underlay (and rigid sarking). For DryVent Ridge, place Profile Filler Units below the Terminal and secure with the drive screw and clamping plate provided in the pack. For mortar bedded ridge, continuously edge bed and solidly butt joint the ends of the Terminal.

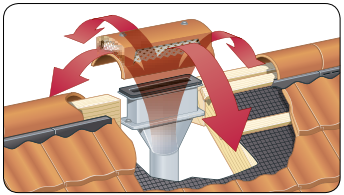
5

For soil vents or mechanical extraction, fix the Flexible Pipe onto the Terminal Adaptor by tightening the clip with a screwdriver to provide an airtight joint. Ensure the worm drive section of the clip is placed on the overlapped neoprene cuff area.

6

Connect the Terminal Adaptor ensuring the four lugs on the Terminal engage into the four holes in the Adaptor. Apply downward pressure on the Terminal to ensure a satisfactory connection. The free end of the Flexible Pipe is then connected to the main stack of the soil vent pipe or mechanical extraction pipe.

Gas Flue Ridge Terminal



The Gas Flue Ridge Terminal is designed for use on duo-pitched roofs in conjunction with concrete Half Round and Universal Angle Ridge Tiles on DryVent or bedded ridges. The Terminal is of low air-flow resistance design, to enable flue gases to escape.

Gas Flue Ridge Terminal
(Universal Ridge Shown)

Sealing Gasket

Extension
Adaptor

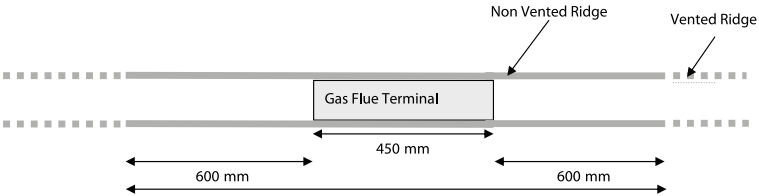
Product Codes and Descriptions
7241 Half Round Gas Ridge Flue Terminal
7242 Universal Angle Gas Ridge Flue Terminal
9143 Extension Adaptor

Blanking Plates are required when used with DryVent Ridge.

Product Codes and Descriptions	Number of Units (per pack)	Coverage (m)	
Pack	Blanking Plates	Blanking Plates	Pack
9099 Slates and Plain Tiles	8	0.45	1.8
9098 Grovebury, 50 Double Roman, Regent, Renown	12	0.3	1.8

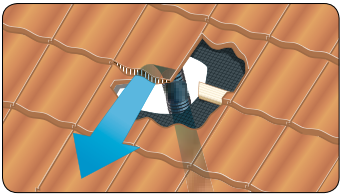
For DryVent Ridge remove a 370 mm section of the ridge batten equi-distant between rafters. The terminal is secured by the clamping plate screwed into pre-drilled pilot holes in the ridge batten.

To comply with Building Regulations, when using DryVent Ridge with a Gas Flue, one pack of Blanking Plates must be used with each terminal. Each pack contains sufficient inserts to blank off the required number of Profile Filler Units. A Blanking Plate must be inserted into the grille of every Profile Filler Unit within 600 mm each side of and directly below the Gas Flue Terminal. To assist connection to an 'R' type adaptor, an Extension Adaptor is available for steeper roof pitches.



1650 mm of non-vented ridge required by Building Regulations

RedLine Ventilation Tile for Interlocking Tiles



The RedLine Ventilation Tile provides roof space ventilation through the leading edge of the tile ensuring that the clean lines of the roof are maintained. It is ideal for use where alternative eaves and ridge ventilation systems are not appropriate.

RedLine Vent
(Mini Stonewold Shown)

Underlay Seal

Nails and Clips

Flexipipe
(Sold separately)

Pack Contents

1 x RedLine Vent
1 x Underlay Seal
1 x Nail and Clip pack

Product Codes and Descriptions

9114 Landmark Double Pantile/Grovebury RedLine Vent
9115 Regent RedLine Vent
9116 Renown RedLine Vent
9117 Landmark Double Roman/50 Double Roman RedLine Vent
9118 Mini Stonewold RedLine Vent
9172 Flexible Pipe (100/100mm)

1 | Marking the position

a) Place underlay seal over space in which RedLine Vent is to be fitted, ensuring that the arrows above the wording 'RedLine Vent' are pointing towards the ridge
b) Line up edge of tile with line marked on underlay seal.
c) Cut slot in underlay tight up to the top edge of the batten between points indicated on the underlay seal.

2 | Fitting the underlay seal

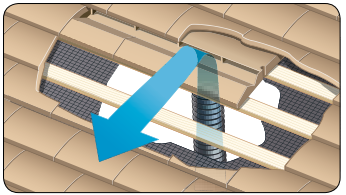
a) Slide underlay seal under the lower and upper battens, slipping the top centre tab into the slit in the underlay.
b) Cut a 'Cross' into the underlay, ensuring the cuts cross in the centre of the hole.

Note: In the case of rigid sarking or boarding a suitable wood saw must be used to provide a clear path to the roof space

3 | Nailing and clipping

Remove clip and nail pack from vent tile pipe. Place ventilation tile in position ensuring the pipe passes through the hole in the underlay. Fix in two places with both clip and nail provided. Continue to lay tiles around the vent as normal.

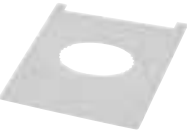
RedLine Plain Tile Ventilation Units



This range of ventilators maintains the beauty of the plain tiled roof. They are ideal for roof space ventilation where alternative eaves and ridge ventilation systems are not appropriate. They can also be used for mechanical extraction and soil pipe ventilation.

RedLine Plain Tile Vent

Flexible Pipe*



Underlay Seal

Fixing Pack

Vent Adaptor*

Pack Contents
1 x RedLine Vent
1 x Underlay Seal
4 x 25mm Underlay Nails

Product Codes and Descriptions
9119 Heathland/Plain Tile RedLine Vent
9172 Flexible Pipe (100/100mm)
9175 RedLine Plain Tile Vent Adaptor
*Sold separately

1 | Marking the position

Position underlay seal on top edge of batten and score cut lines in underlay at each side. Ensure arrow is central with gap of two tiles.

Ensure the underlay seal is as close to the centre of the rafter space as possible.

2 |

Cut underlay along the top of the batten, between the scores, fold up and fix to batten.

Note: In the case of rigid sarking or boarding a suitable wood saw must be used to provide a clear path to the roof space.

3 | Fitting the underlay seal

Slide the underlay seal under the batten. Slide the central flap into the hole and the outer flaps on top of the underlay and under the batten.

4 | Nailing and clipping

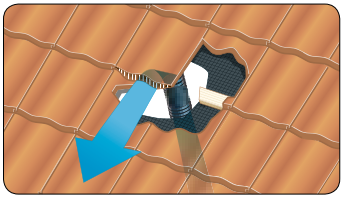
Open the RedLine Vent by lifting the tabs at each side.

Install the vent spigot into the underlay seal hole. Using four 25mm underlay nails, nail into batten through each nail hole. Using available shunt in tile course below, nail two 65mm nails through either concrete or clay nail holes.

5 |

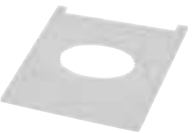
Close lid. Complete tiling in the normal manner.

DuoPlain RedLine Ventilation Tile



The DuoPlain RedLine Ventilation Tile provides roof space ventilation through the leading edge of the tile ensuring that the clean lines of the roof are maintained. It is ideal for use where alternative eaves and ridge ventilation systems are not appropriate.

DuoPlain
RedLine Vent



Underlay Seal

Fixing Pack

Flexible Pipe*

Vent Adaptor

Pack Contents
1 x RedLine Vent
1 x Underlay Seal
1 x Adaptor
1 x Nail and Clip pack

Product Codes and Descriptions
9113 DuoPlain RedLine Vent
9172 Flexible Pipe (100/100mm)
*Sold separately

1 | Marking the position

Place underlay seal over space in which the RedLine Vent is to be fitted (ensure the seal is as close to the centre of the rafter space as possible.) Line up 'MIN' and 'MAX' shunt lines, marked on underlay seal, with edge of tile. Pull back centre section of seal and score cut lines in underlay, with a nail using side finger sections as a guide.

2 | Preparing the underlay

Measure 150mm down from the top of the battens, and cut underlay accordingly. Fold underlay back over batten and fix with underlay nails. Cut the excess underlay flush with the top of batten. Note: In the case of rigid sarking or boarding a suitable wood saw must be used to provide a clear path to the roofspace.

3 | Fitting the underlay seal

Slide the underlay seal under the batten below, on top of the underlay.

4 | Aligning the underlay seal

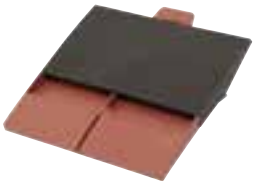
Slide the central section of the seal into the hole, under the underlay and the outer fingers, over the underlay and under the batten. Slide up until the 'TOP OF BATTEN' line 'B' (on the seal) lines up with the top of the batten. Align 'MIN and 'MAX' shunt lines, marked on underlay seal, with edge of tile (interlock). Insert the adaptor into the vent tile spigot and ensure the lugs are located in the appropriate channels.

5 |

Insert the adaptor pipe throught the hole in the underlay seal, using slit at bottom edge to aid fitting. Ensure seal returns to flat position against the underlay, after fitting. Using the fixings provided, nail the vent to the batten and then secure the hook of the clip over the tile's interlock and slide down under the head of the tile. Continue tiling as normal.

Rapid Roof Vents

A range of in-line ventilating tiles suitable for both low and high-level roof space ventilation, to combat condensation, as well as mechanical and soil pipe ventilation. Suitable for use with most popular interlocking concrete tiles and plain tiles.

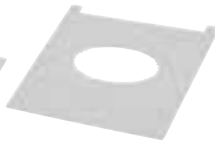


Rapid Roof Vent (Plain Tile)

Rapid Roof Vent (Double Roman)

Adaptor* (Plain Tile)

Underlay Seal (Plain Tile)



Underlay Seal (Interlocking Tiles)

Adaptor* (Interlocking Tiles)

Flexible Pipe* (100/100mm)

* Sold separately

To meet the requirements of BS5250:2011 the vents must be installed at the following centers:

	mm² of effective ventilation	5,000 mm²/m	10,000 mm²/m	25,000 mm²/m
Interlocking (no adaptor)	10,000	2m	1m	0.4m
Interlocking/49# (inc. adaptor)	8,600	1.72m	0.86m	0.34m
Plain Tile	6,500	1.3m	0.65m	0.26m

#The 49 comes with the adaptor which **MUST** be used.

Product Codes:

9124 Mini Stonewold Vent
9125 Double Roman Vent
9126 Grovebury Vent
9127 Renown Vent
9128 Plain Tile Vent
9129 Redland 49 Vent (inc. Vent Adaptor)
9791 Vent Adaptor (Interlocking Tiles)
9175 Vent Adaptor (Plain Tile)
9172 Flexible Pipe (100/100mm)

1

1. Position underlay seal over underlay in location where vent tile is to be fitted (ensure the seal is located centrally between rafters)

2. Line up the centre of the underlay seal with tile below as follows:
   Straight bond - Nail Hole
   Broken Bond - Tile edge
   Plain Tiles - Centre of the tile below

3. Pull back the centre section of the seal and score cut 2 vertical lines in underlay along edges of seal with a nail or Stanley knife, using side finger sections as a guide

   Note: The Plain Tile underlay seal has different dimensions to the image, but is fixed the same way

2

1. Using score lines as a guide, measure 150mm down from the bottom edge of the batten and make horizontal score line
2. Once cut, fold underlay back over batten and fix with 2 underlay nails

Note: In the case of rigid sarking or boarding a suitable wood saw must be used to provide a clear path to the roof space

3

1. Position the underlay seal so that the central section of the seal fits into the hole under the underlay (and upper batten) and the outer fingers of the seal slide between the underlay and upper batten

Rapid Roof Vents

4

1. Place the vent tile in position so that the moulded underside clip is located below the interlock of the adjacent tile (when fitted this prevents the vent tile from lifting)
2. Ensure the underlay seal fits around the spigot and returns to a flat position against the underlay after fitting

5

1. When using the Adaptor, ensure the adaptor lugs are located in the appropriate channels in the vent spigot
2. Insert the Adaptor pipe through the hole in the underlay seal and engage the moulded underside clip of the vent tile with the adjacent tile as in 4.
3. Ensure the underlay seal returns to a flat position against the underlay after fitting. Note: Rapid Roof Vent for Redland 49 tiles must be installed with the Adaptor Pipe supplied.

6

1. Mechanically fix the vent into position
2. Continue with tiling the roof in the normal manner

If the vent is to be used for soil or mechanical extraction the Vent Adaptor (code 9791/9175) and 100mm diameter Flexible Pipe (code 9172) must be used.

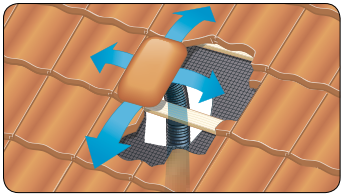
When used for roof space ventilation at high level the vent must not be installed directly under the ridge tile.

Maximum headlap 100mm.

Minimum pitch will depend on the minimum pitch for the relevant Redland tile profile.

Notes

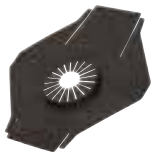
ThruVent - Interlocking



The ThruVent Tile is a means of incorporating roof space ventilation within the roof slope where alternative eaves and ridge ventilation systems are not appropriate. It can also be used for mechanical extraction and soil pipe ventilation.

4.5K ThruVent
(Cambrian shown)

Hi-Flow ThruVent
(Cambrian Slate)



Underlay Seal

8.8K ThruVent
(Double Roman
shown)

Flexible Pipe (100/100mm)
for 8.8K ThruVent
(Sold separately)

Flexible Pipe (75/100mm)
for 4.5K ThruVent
(Sold separately)

Pack Contents
1 x ThruVent
1 x Underlay Seal

ThruVents 4.5K
7329 Fenland Pantile 4.5K ThruVent
7334 Redland 49 4.5K ThruVent
7705 Cambrian 4.5K ThruVent
7830 Cathedral 4.5K ThruVent
7834 Old Hollow 4.5k ThruVent

Hi-Flow ThruVent
7349 Cambrian Hi-Flow ThruVent

ThruVents 8.8K
7930 Regent 8.8K ThruVent
7931 Grovebury 8.8K ThruVent
7932 Renown 8.8K ThruVent
7933 50 Double Roman 8.8K ThruVent
7934 Stonewold II 8.8K ThruVent
7938 Landmark Double Pantile 8.8K ThruVent
7939 Landmark Double Roman 8.8K ThruVent
7943 Richmond 10 8.8K ThruVent
7944 Saxon 10 8.8K ThruVent
7945 Landmark Slate 10 8.8K ThruVent
7935 Mini Stonewold 8.8K ThruVent

Flexipipes
9172 Flexible Pipe (100/100mm) for 8.8K ThruVents
9188 Flexible Pipe (75/100mm) for 4.5K ThruVents

1 | Marking position for ThruVent

a) Place underlay seal over space in which ThruVent is to be fitted, ensuring that the arrows above the wording "ThruVent" are pointing towards the ridge.
b) Line up edge of tile with the line marked for tile profile.
c) Position the corresponding line marked for tile profile with the top edge of the batten. Cut slot in underlay tight up to the edge of the underlay seal between points indicated.

2 | Fitting Underlay Seal

a) Slide underlay seal under the lower and upper battens, slipping the top centre tab into the slit in the underlay.
b) Cut a 'cross' into the underlay, ensuring the cuts cross in the centre of the hole.

NOTE: In the case of rigid sarking or boarding a suitable wood saw must be used to provide a clear path to the roof space.

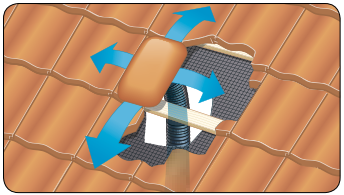
3 | Nailing and Clipping

Place ventilation tile in position ensuring the pipe passes through the hole in the underlay. Fix the vent with the nail provided.

If tiles are laid at minimum gauge, there may be some interference with the ThruVent cap and the tile above - in this instance, push the tile in the course above the ThruVent up until it clears the cap. Fix in position via a re-drilled nail-hole and by nailing to the batten.

Hi-Flow ThruVent requires a non Redland Adaptor to connect to a pipe.

ThruVent - Plain Tile



The ThruVent Tile is a means of incorporating roof space ventilation within the roof slope where alternative eaves and ridge ventilation systems are not appropriate. It can also be used for mechanical extraction and soil pipe ventilation.

ThruVent Tile
Main Unit

Plain Tile
ThruVent and fixings
Small Unit

Underlay Seal

Flexible Pipe
(75/100mm)
(Sold separately)

Pack Contents
1 x Main Unit
1 x Small Unit
1 x Underlay Seal
1 x Fixing Pack

Product Codes
7347 Plain Tile 4.5K ThruVent
9188 Flexible Pipe (75/100mm)

1 | Marking position for ThruVent

Mark the position of the ThruVent and leave the battens sprung on the adjacent rafters. Where the ThruVent downpipe will be positioned, cut the tiling batten to leave a gap the width of a Plain Tile. Gap should be in line with the tile two courses below to ensure correct coursing of tiles.

2 | Fitting Underlay Seal

a) Place underlay seal over space in which ThruVent is to be fitted, ensuring that the arrows above the wording 'THRU VENT' are pointing towards the ridge.
b) Line up edge of tile with line marked for plain tile.
c) Line up underlay seal to top edge of batten (two courses up from pipe hole). Cut slot in underlay tight up to the edge of the underlay seal between points indicated.

3 | Nailing and Clipping

a) Slide underlay seal under the lower and upper battens, slipping the top centre tab into the slit in the underlay.
b) Cut a 'cross' into the underlay ensuring the cuts cross in the centre of the hole.

4 | Batten Support Straps

Hook the batten support straps as indicated. Ensure the straps are fitted flush to the end of the batten. Nail into position with plain tile nails.

5 | Small Tile and Clips

Support small tile on top of tiles as shown. Secure with the clips provided by nailing through the clip into the nail holes of the tile beneath.

6 | Tile Location and Completion

Place 'ThruVent' into position ensuring the outlet pipe passes through the hole in the underlay. Complete the tiling in the normal manner.

Rapid Roof Putty

Rapid Roof Putty is a flexible, highly adhesive, fibre reinforced synthetic mortar. Rapid Roof Putty can be used with all types of concrete tiles and slates as an alternative to traditional concrete mortars, and provides weather tightness against driving rain and drifting snow.

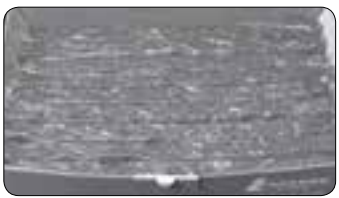
Installation Instructions

Rapid Roof Putty is a lightweight product that has been developed to fix ridges, hips, valleys and verges as an alternative to traditional mortar. Rapid Roof Putty combines the architectural and professional traditions of mortar with a number of new and improved features such as weather resistance, flexibility and simplified installation.

Pack Contents

Contents: 9 individually packed strips per carton
Coverage: approx. 2m ridge/hip (both sides)
Total weight: about 5.5 kg per carton.
Rapid Roof Putty is available in brown, terracotta or black colours

Product Codes and Descriptions:	915563	Rapid Roof Putty Black
	915534	Rapid Roof Putty Terracotta
	915536	Rapid Roof Putty Brown



1

Remove and open one strip at a time. Rapid Roof Putty should be used soon after opening the airtight bags. Ridge tiles and roof tiles must be dry and thoroughly cleaned of loose particles before installation begins. Disposable gloves should be worn when handling the putty.

2

Use a ridge tile as a measuring unit to correctly position the Rapid Roof Putty. The back of the strip must be positioned 3.5cm behind the front edge of the ridge tile. The ridge tile itself must achieve a minimum 75mm overlap over the top course of roof tiles.

3

Place the putty on the ridge and roughly form to the shape of the roof tile. Remove the protective film from the putty by pulling in a horizontal direction and discard.

4

Press the ridge tile down over the Rapid Roof Putty in order to establish a good adhesion between the ridge tile and putty material. There must be at least 12mm thickness of putty between the ridge tile and upper surface of the roof tiles. Ensure that the ridge tile has a minimum of one nail hole to accept a screw fixing. Drill a nail-hole if necessary.

5

Remove excess putty and fill in any gaps with a trowel, smoothing the putty carefully. The smooth putty surface must be at right angles to the surface of the roof and it must not extend beyond the outer edges of the ridge tiles.

6

Spare putty can be used to fix the next ridge tile.

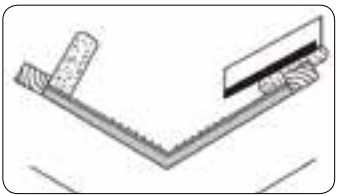
Rapid Roof Putty

7 |

The butt joint between two ridge tiles is filled with putty, similar to mortar installations. When all ridge tiles are in position secure each ridge tile to the timber ridge batten using a 100mm x 4mm woodscrew (9584) and clamping plate (Universal Angle 9566 or Half Round 9567).

8 | At Hips

Use a hip tile as a guide to find the correct position of the Rapid Roof Putty. The back of the strip must be positioned 3.5cm behind the front edge of the hip tile. Ensure all hip tiles are secured to the timber hip batten using 100mm x 4mm woodscrews (9584).



9 | At Valleys

Rapid Roof Putty is placed as shown in the sketch. Press the Rapid Roof Putty down against the underlay. Remove the protective film from the putty. Press the roof tiles down into the putty to establish good adhesion. Ensure that the putty thickness is at least 12mm. The finished putty surface must be set back from the cut roof tile edges by at least a 3cm.

Notes:

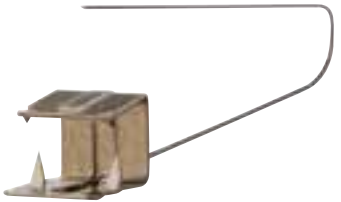
Rapid Roof Putty is made from linseed and speciality mineral oils combined with micro polystyrene balls. Drying takes place naturally when exposed to air.

Rapid Roof Putty withstands temperatures from -40°C. to +80°C. It works best when stored at 20°C.

Store out of direct sunlight and excessive heat. Use within 1 year from the time of production.

All tiles should be fixed according to the current standards and manufacturer's instructions.

Kro-Clip



Redland Kro-clip is a versatile clip that allows small roof tile cuts to be mechanically fixed in accordance with BS 5534, Code of practice for slating and tiling at hips, valleys, roof windows and many other applications where it is difficult otherwise to obtain a secure mechanical fixing either at the head or tail of the cut roof tile.

- Speedy solution to the long-standing problem of fixing small cut tiles
- Quick and easy to install product
- Removing the need to use unpredictable glue solutions which rely heavily on workmanship
- Comes in convenient boxes of 50 clips
- Universal fit covering a large range of tile types

Dimensions:
Wire: 380 mm long
Clip: 30 mm long x 12 mm depth (jaw), 16 mm depth (back)
Material: Corrosion-resistant stainless spring steel

Installation Instructions on the Redland website available for download. They are not included in the box.

Product Code:
9142 Kro Clip (50)

Outlet Adaptors

A range of modular outlet adaptors, that can be combined with Redland interlocking concrete tiles to give a great fit and match to the rest of the tiles, giving peace of mind and a properly sealed roof.

Outlet Base Tile
(Regent shown)

Solar Adaptor

Cable Seal

Cable Adaptor Set

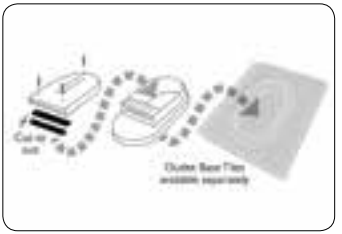
Aerial Adaptor

Product Codes and Descriptions:

Outlet Adaptors
9262 Cable Outlet Adaptor
9263 Solar Outlet Adaptor
9264 Aerial Outlet Adaptor

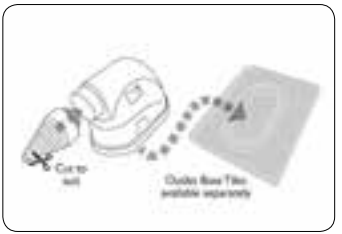
Outlet Base Tiles
9249 Regent Outlet Base
9250 Grovebury Outlet Base
9251 Renown Outlet Base
9252 50 Double Roman Outlet Base
9253 Stonewold II Outlet Base
9255 Mini Stonewold Outlet Base
9256 Landmark Double Pantile Outlet Base
9257 Landmark Double Roman Outlet Base
9259 Richmond 10 Outlet Base
9260 Saxon 10 Outlet Base
9261 Landmark 10 Slate Outlet Base

Cable Seals
9469 Cable Seal 8–12mm
9470 Cable Seal 15-22mm
9471 Cable Seal 25-32mm



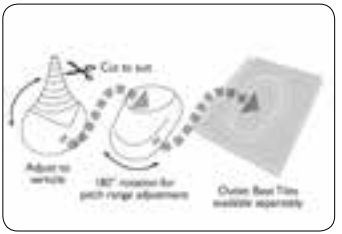
Cable Outlet Adaptor

Position base tile to avoid roof rafters and mark underlay at centre of opening, and cut to allow cables to pass through. Seal around the cables, with a cable seal. Stick to underlay in a diamond orientation. Push adaptor onto base tile and snap into place, ensuring all 4 tabs are engaged. Cut one block off blanking strip for each cable being used, and insert into front channel. Then, with cables in position, add the foam strips and adaptor cover and screw into place.



Solar Outlet Adaptor

The seal and base tile for the solar adaptor is installed in a similar way. The larger cable is then passed through adaptor and the adaptor is snapped into place. The end of the rubber gasket is cut to suit the size of the cable. It should be a close fit to provide a weathertight solution. The gasket is then pushed firmly onto the adaptor.



Aerial Outlet Adaptor

The aerial Adaptor, for fixing aerials or satellite dishes, comes in two parts. Attach the top part one way round for a lower roof pitch range or the other way round for a higher roof pitch range. Snap the antenna adaptor onto the base tile with the outlet vertical. The base tile should be located so that fixing pole can be mounted to a secure point in the roof. The underlay should be sealed with an outlet collar as before. Continue to lay the rest of the roof as usual.

Ornamental tiles, finials and ridges

Our concrete ornamental ridge fittings are compatible* with mortar bedding, dry-fix and ventilated systems, enabling a complete roof, to be easily achieved without compromising good looks.

Ornamental Ridge		Product Codes	Overall Size (L x W x H mm)	Height of Finial (mm)	Weight (kg)
	**Cockscomb Ridge**				
	Universal Angle Ridge	7468	450 x 259 x 206	100	7.7
	Universal Angle Ridge Block-end	7538	450 x 259 x 330	100	9.6
	Half Round Ridge	7458	450 x 256 x 198	100	7.6
	Half Round Ridge Block-End	7540	450 x 256 x 315	100	8.8
	**Three Hole Crested Ridge**				
	Universal Angle Ridge	7462	450 x 259 x 256	150	8.5
	Universal Angle Ridge Block-end	7558	450 x 259 x 380	150	10.4
	Half Round Ridge	7455	450 x 256 x 248	150	8.4
	Half Round Ridge Block-End	7560	450 x 256 x 365	150	9.6
	**Fleur-de-Lys Ridge**				
	Universal Angle Ridge	7467	450 x 259 x 256	150	8.1
	Universal Angle Ridge Block-end	7568	450 x 259 x 380	150	10.0
	Half Round Ridge	7457	450 x 256 x 248	150	8.0
	Half Round Ridge Block-End	7570	450 x 256 x 365	150	9.2

Ornamental Tile		Product Codes			
	**Club**				
	Rosemary	6521	-	-	-
	Concrete Plain	6251	-	-	-
	Heathland	6671	-	-	-

***Guidance Notes**: Not compatible with Uni-Vent Rapid Ridge/Hip
Fixings - all Finials and Ornamental Ridges should be fixed using100mm stainless steel woodscrews

Finials		Product Codes	Overall Size (L x W x H mm)	Height of Finial (mm)	Weight (kg)
	**Scroll**				
	Universal Angle Ridge	7529	300 x 259 x 306	200	8.5
	Universal Angle Ridge Block-end	7530	300 x 259 x 430	200	12.8
	Half Round Ridge	7527	300 x 256 x 298	200	8.1
	Half Round Ridge Block-End	7528	300 x 256 x 415	200	11.6
	**Short Ball Top**				
	Universal Angle Ridge	7485	300 x 259 x 376	270	7.4
	Universal Angle Ridge Block-end	7487	300 x 259 x 500	270	11.7
	Half Round Ridge	7481	300 x 256 x 368	270	7.0
	Half Round Ridge Block-End	7483	300 x 256 x 485	270	10.5
	**Tall Ball Top**				
	Universal Angle Ridge	7486	300 x 259 x 476	370	7.8
	Universal Angle Ridge Block-end	7488	300 x 259 x 600	370	12.1
	Half Round Ridge	7482	300 x 256 x 468	370	7.4
	Half Round Ridge Block-End	7484	300 x 256 x 585	370	10.9
	**Fleur-de-Lys**				
	Universal Angle Ridge	7491	300 x 259 x 526	420	7.8
	Universal Angle Ridge Block-end	7492	300 x 259 x 650	420	12.1
	Half Round Ridge	7489	300 x 256 x 518	420	7.4
	Half Round Ridge Block-End	7490	300 x 256 x 635	420	10.9

Performance and Appearance

Authority
All concrete slates and tiles conform to BS EN 490:2011: Concrete roofing tiles and fittings for roof covering and wall cladding – Product specifications. All clay tiles conform to BS EN 1304:2005: Clay roofing tiles and fittings – Product definitions and specifications. Redland Natural Slates have been tested in accordance with BS EN 12326-1:2004: Slate and stone products for discontinuous roofing and cladding. Product specification. As there is no British Standard for Cambrian Slate, it has been designed to meet the relevant performance requirements of BS 5534:2003: Code of practice for slating and tiling (including shingles) and has been awarded British Board of Agrément certificate No. 87/1907.

Sustainability
As members of the Concrete Tile Manufacturers Association and Clay Roof Tile Council, data supplied for our concrete and clay roof tiles enabled the BRE Green Guide to Specification to award the highest A+ rating for generic concrete and A+ rating for generic clay tiles. Redland Cambrian Slates are the most eco-friendly resin slates available; the Green Guide to Specification awards generic resin slates an A rating when part of standard roof constructions, the same as for UK produced natural slates. Monier Redland is also working toward achieving BES 6001 Very Goodrating at all its manufacturing sites in the UK demonstrating its commitment to achieving the highest standards in responsible sourcing and manufacturing. Specification of Redland products consequently allows developers to obtain the highest number of credits and points in the Code for Sustainable Homes for the roofing materials chosen.

Composition and Manufacture
Concrete tiles and slates are manufactured by a high-pressure extrusion and compaction process. Rosemary clay plain tiles are extruded; Fontenelle, Postel, Old Hollow and Cathedral clay pantiles are pressed. Redland Del Carmen natural slate is quarried in the Cabrera Mountains in north-western Spain. Cambrian Slates are manufactured from crushed Welsh natural slate (minimum content over 60%), stone, resin and glass-fibre reinforcement.

Movement
Designed vertical and horizontal laying tolerances will accommodate normal thermal and other movements.

Strength and Durability
Slates and tiles do not delaminate and despite having high strength properties, are easy to cut. All Redland clay and concrete slates and tiles exceed the minimum strength requirements as laid down in BS EN 1304 or BS EN 490 respectively. Redland Natural Slates exhibit high flexural strength and are tested in accordance with BS EN 12326-1:2004.

Performance
All slates and tiles have been rigorously tested in our wind tunnel where combinations of high wind and driving rain are used to determine the products' performance with respect to wind loading and weathertightness. Slates and tiles will meet the requirements of BS 5534:2003: Code of practice for slating and tiling, providing our fixing recommendations are complied with.

The information contained in this Guide relating to Cambrian, concrete slates, Fontenelle and DuoPlain are based on a maximum rafter length of 10 metres at minimum pitch. For rafter lengths greater than this, telephone the Technical Solutions Hotline on +44 (0)8708 702595 for advice. The minimum pitch and maximum rafter length may be affected by roof features such as dormers, roof windows and chimneys. For advice on the inclusion of such features in a roof slope contact the Technical Solutions Hotline.

Fire Resistance
Cambrian Slates are classified as follows: EXT.S.A.A. when tested for fire protection to BS 476-3:2004: Fire tests on building materials and structures – Classification and method of test for external fire exposure to roofs. Class 2 when tested for surface spread of flame to BS 476-7:1997: Fire tests on building materials and structures – Method of test to determine the classification of the surface spread of flame of products. Fire propagation index 12.3 when tested to BS 476-6:2009: Fire tests on building materials and structures – Method of test for fire propagation for products. Under the Building Regulations there are no restrictions on the use of Cambrian Slates as a roofing material but for mansards above 69° or vertical slating, it is essential to comply with Approved Document B. All other slates and tiles are non-combustible and are classified S.A.A. when tested for fire protection and spread of flame to BS 476-3:2004: Fire tests on building materials and structures There are no restrictions on their use under the Building Regulations.

Environmental Effects
Frost: unaffected by frost action.
Heat: unaffected by temperature extremes.
Sunlight: unaffected by prolonged exposure to ultraviolet light and sunlight.
Atmospheric pollution: suitable for all rural, marine and normal industrial environments. Resistant to all but the most highly polluted atmospheres, where sulphur dioxide levels exceed 70 microgrammes/m^3 of air. Redland Natural Slates are classified S1 under BS 12326 for resistance to pollution.

Biological Effects
Birds and rodents: tiles and slates are not attacked, or degraded by birds, rodents or insects.
Mosses and lichens: tile and slate durability is not affected by the growth of lichens and mosses. However, the removal of growths may be necessary when the flow of rainwater off the roof is impeded and valleys, gutters or downpipes become blocked.

Health & Safety
Data sheets covering properties, storage and safe use of our products are available on request from Redland's Safety Manager, telephone our Customer Service Hotline for details. When cutting tiles or slates using an angle grinder which generates large concentrations of dust, the measures defined in the Health and Safety Executive, Guidance Note EH 40 must be followed.

Appearance
Under normal production conditions colour variation may occur in slates, tiles and fittings. Natural weathering may also cause changes in colour and appearance. In both cases this is acceptable under BS EN 490. Scratches and abrasions caused by packing, loading and transportation are also permissible as long as the overall slate or tile quality is not affected. Cambrian Slates can be pre-weathered during manufacture if required. After installation slight lightening may occur due to natural weathering. Landmark slates and tiles are designed to change over time, just as natural slate and clay mellow and develop character. With the exception of Landmark, efflorescence, which is a surface phenomenon associated with concrete products, may result in a temporary lightening of the surface colour. This will be removed by weathering. Natural Slates are devoid of artificial pigments but some natural colour variation, variability in grain and inclusions can occur. Redland Natural Slate products attain a T1 classification in BS EN 12326 and therefore oxidisation, change of appearance and colour changes which may affect the structure or form runs of discolouration are unlikely to occur.

For the best visual effect on the roof, slates and tiles must be selected randomly from a minimum of three different pallets. When laying tiles in prominent areas it is advisable to ensure that there are sufficient stocks of mixed tiles available to complete the elevation. Slates or tiles of the same colour or profile, which are manufactured at different plants,must not be mixed on the same roof area.

Performance and Appearance

Fixing Specification

Every Redland Del Carmen Ultra® slate must be fixed with either copper or stainless steel nails or stainless steel hooks. There is only one recommended fixing specification for Cambrian Slates – they must be twice nailed and clipped using proprietary nails and clips. In addition, verge clips are required for every verge, raking valley cut and rooflight abutment. For information on how to obtain recommended fixing specifications for all other Redland slates and tiles, go to www.redland.co.uk/fixmaster

General Guidance

Special Notes on laying Natural Slates

- All slates must be sorted into a minimum of three thicknesses prior to laying.
- Thick slates should be laid at the eaves with the thinnest used on upper roof sections using slates of consistent thickness in any one course.
- Fix each slate with two nails through prepared holes.
- At all eaves, a double course of slates is required.
- All slates should be laid broken bond and double lapped.
- Form verges by using Standard Slates and Slate-and-a-halves in alternate courses.
- At ridges and top edge abutments, a shouldered slate should be used in the course below the top course to enable the short top course slates to be nailed directly to the batten.
- At hips and valleys, care should be taken to preserve an adequate bond by using Slate-and-a-halves.
- When used with mechanically fixed ridge or top edge abutment systems, further fixing may be required. Please contact technical solutions.
- Please contact Technical Solutions for use on Vertical or on Curved Roofs.

Special Notes on laying Cambrian and Concrete Slates

- All slates must be laid broken bonded, normally from right to left. MockBond Mini Stonewold and MockBond Richmond 10 should be laid with a 3/4 tile offset, as opposed to a standard 1/2 tile offset.
- Use standard slates at the eaves.
- At right-hand verges for Cambrian Slates, use Standard Slates and Slate-and-a-halves in alternate courses. For all other slates except MockBond Mini Stonewold and MockBond Richmond 10 use Standard Slates and Right-hand Half Slates in alternate courses. For MockBond Mini Stonewold and MockBond Richmond 10 use standard slates (with interlocks removed) or Right-hand Half Slates and site cut 3/4 width slates in alternate courses.
- At left-hand verges for Cambrian Slates, use Left-hand Verge Slates and Left-hand Verge Slate-and-a-halves in alternate courses. For all other slates except MockBond Mini Stonewold and MockBond Richmond 10 use Standard Slates with interlocks removed, and Left-hand Half Slates in alternate courses. For MockBond Mini Stonewold and MockBond Richmond 10 use Standard Slates (with interlocks removed) or Left-hand Half Slates and site cut 3/4 width slates in alternate courses.
- At side abutments, allow for cover flashing and secret gutter.
- In the top course use Standard Slates.

Additional Notes when laying Cambrian Slates

- For rafter pitches below 45° with mitred hip, Double Slates will be required on all courses either side of the hip. At pitches greater than this Slate-and-a-halves can be used.
- For rafter pitches below 25° for valleys, dry and mechanically fixed bedded hip, Double Slates will be required on all courses either side of the valley or hip. At pitches greater than this Slate-and-a-halves can be used.
- For advice on the replacement of individual slates, contact the Technical Solutions Hotline.
- All mortar bedded hips/ridge must be mechanically fixed.

Special Notes on laying Plain Tiles

- At eaves, use double courses with purpose made Eaves/Top Tiles for the undercourse.
- At verges and abutments to maintain broken bond, use Standard Plain Tiles and Tile-and-a-halves in alternate courses.
- Adjacent to hips, valleys and angles use Tile-and-a-halves.
- At side abutments, allow for stepped flashing and soakers.
- At top courses use double courses with purpose made Eaves/Top Tiles for the top course.
- For Winchester Cuts use two Tile-and-a-halves per course. Winchester Cut detail must not be used to abut roof pitches below 40° or in exposed locations. In these cases soldier or double soldier courses must be used.
- For Heathland and concrete Plain Tiles secure top course with a Top Tile Clip with mortar bedded ridges and top edge abutments.

Special Notes on laying Profile Tiles

- Tiles must be laid straight bonded, normally from right to left.
- Reform Eaves Filler Units must be used at all eaves situations with Landmark Double Pantile, Grovebury, Regent and Norfolk Pantile
- Eaves Comb Fillers must be used at all eaves situations with Cathedral and Old Hollow Clay Pantiles.
- At left-hand verges, use Standard Tiles with interlocks removed. At right-hand verges, use Standard Tiles. Half Tiles must not be used at verges. Use Left-hand Verge Tiles with Cathedral and Old Hollow Clay Pantiles.
- Dentil slips must be used for mortar bedded ridges and hips with Cathedral and Old Hollow Clay Pantiles, Landmark Double Pantile, Landmark Double Roman, Grovebury, Regent, 50 Double Roman and Norfolk Pantile.
- Half Tiles should be used with Landmark Double Pantile, Landmark Double Roman, Grovebury, 50 Double Roman, Regent and Renown to avoid the use of small pieces of tiles. Use Two-Thirds Tile with Cathedral Clay Pantile.
- As Old Hollow Clay Pantiles have no interlocks, it is very important that perpendicular lines are struck prior to laying to ensure the correct side overlap is achieved.

Performance and Appearance

Special Notes on laying DuoPlain

- All tiles must be laid broken bond with a three quarter tile offset, normally from right to left. On gable-to-gable roofs try and lay out the tiles so that the eaves course starts with a Standard Tile and finishes with a LH Verge (three quarter) Tile.
- At right-hand verges use Standard Tiles and RH Verge (three quarter) tiles in alternate courses.
- At left-hand verges use Standard Tiles with interlocks removed and LH Verge (Three Quarter) Tiles in alternate courses. If it is not possible to end the eaves course in this way, cut verge tiles of the required length from Tile-and-a-halves.
- Do not use any cut pieces of tile smaller than a LH Verge (Three Quarter) Tile.
- At hips and valleys use Tile-and-a-halves on each course either side.
- At side abutments, allow for cover flashing and secret gutter.

Timber Sarking

Roofing practice in Scotland includes the use of timber sarking and counterbattens. Insulation board is also widely used as rigid sarking throughout the UK. The presence of sarking board in either of these forms will affect many of our standard details. It must be noted that the combined thickness of the sarking and counterbatten chosen may alter details slightly. For insulation board, advice on the size and fixing of the counterbattens should be obtained from the specific insulation manufacturer.

Notes

Redland Services

Training Services

At Redland, we have a long tradition of training and support to help our customers get the most out their roofing choices.

Our Redland Training and Resource Centre offers courses covering everything from the basics of roofing to specialist areas such as estimating and PV system installation. Everything you need to know, in fact, about every item in the Redland range.

Most of our training programmes are free to Redland customers, with only a small charge for certain specialist subjects.

CPD Courses

Regular practical CPD sessions are also available. These are held on purpose built rigs in our Training and Resource Centre to ensure a relaxed and safe learning environment.

For more details and to check course availability:

The Redland Training and Resource Centre
Monier Redland Ltd
South Cerney Plant
Broadway Lane
South Cerney
Cirencester Gloucestershire GL7 5UH

Tel: **01285 863545**
Fax: **01285 863546**
Email: **training.redland@monier.com**

Design Tools

Redland offers an extensive range of technical design services to save you time and money and give you complete peace of mind:

SpecMaster

The complete, free-of-charge roof specification service with NBS based clauses and our comprehensive 15-year design liability guarantee.

DesignMaster

Comprehensive CAD library of over 4,000 free, quality roofing drawings in .dwg and .dxf file formats.

QuantMaster

Roof materials estimating service to quantify all slates, tiles, fittings and accessories and reduce the risk of over or under-ordering.

ViewMaster

An online tool that allows your customers to 'try before they buy' with virtual images of Redland products on a variety of house types.

FixMaster

A fixing specification service tailored to a specific roof design or to the zonal method to comply with Part A of building regulations for wind loading.

EcoMaster

The complete, guaranteed specification service for projects involving Redland renewable energy systems.

Redland Services

Redland Guarantees

Redland 15-Year SpecMaster Guarantee

Redland's premium guarantee covers the design liability and weathertightness of the Redland specified roof, making it attractive to architects, builders and other specifiers. Available wherever the roof has been specified by Redland's expert specification team utilising Redland's dry-fix roof systems (excluding the Rapid Plus range of roof components) including tiles. If any Redland product fails during the period of the guarantee resulting in compromised weathertightness of the roof or the design is incorrect, we'll pay the costs of replacing it, and the labour involved*. For further information, call our Technical Solutions Hotline or visit **www.redland.co.uk**

Redland 10-year HomeSpec System Guarantee

HomeSpec is a ten-year roof system guarantee for homeowners that is transferable to all subsequent owners. It covers all tiles, fittings and fixings, components and flashings. HomeSpec is only available if the roof system comprises of a complete Redland Dry-fix system using Redland Rapid Plus range of components plus Redland tiles from the HomeSpec Guarantee Checklist and is installed by a Redland Select member. For more information call the Redland Select Member Hotline or visit **www.redlandselect.co.uk**

Redland Select

Redland Select Membership

Redland Select is the approved contractor network programme that gives you all the backing of Redland's training, lead generation and marketing and sales tools to help you grow your business and, of course, the very best range of quality tiles, fixings and accessories.

Plus, as a Redland Select member, you'll be exclusively qualified to offer our 10 year HomeSpec guarantee to your customers – an excellent product in its own right and a great way to give homeowners complete reassurance and peace of mind.

For more information call the Redland Select Member Hotline

Telephone **020 8481 9472**

or visit **www.redlandselect.co.uk**

*Subject to the terms & conditions of the respective guarantee.

www.redland.co.uk

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