

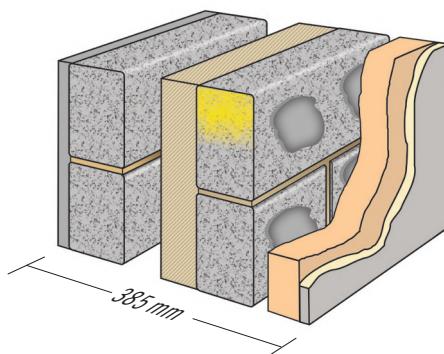
Dense concrete blocks/bricks 22.5N/mm² to BS EN 771-3

1.4

Stowell dense concrete blocks offer the builder a full range of solid concrete blocks with a well-established durability, low drying shrinkage and proven acoustic properties that will fulfil most applications. They are manufactured to BS EN 771-3 using Class 1 limestone aggregates.

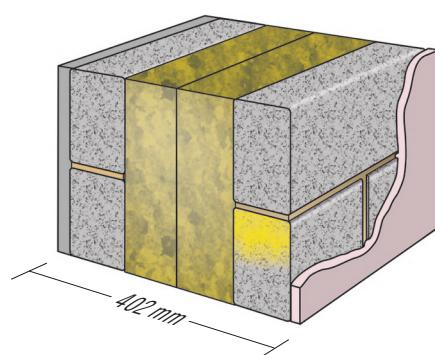
The blocks are available in a standard face size of 440×215mm and in thicknesses of 100mm and 140mm in a standard finish (suitable for rendering).

U-Value 0.18



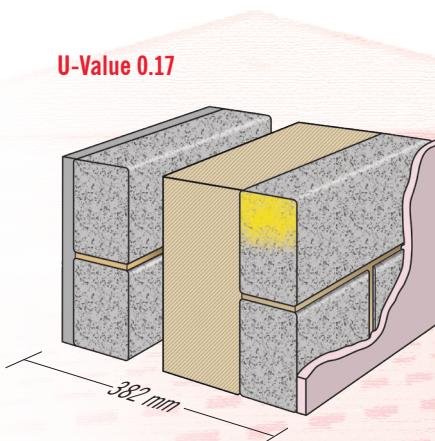
Outside resistance	0.040
19mm sand/cement render (λ 1.00)	0.019
100mm dense 7.3N/mm ² (λ 1.43)	0.070
50mm low emissivity cavity	0.640
50mm foil-faced partial fill	
PIR/PU board (λ 0.022)	2.273
100mm dense 22.5N/mm ² (λ 1.52)	0.066
15mm dabs	0.170
37.5mm phenolic insulation (λ 0.018) bonded to...	2.083
13mm plasterboard (λ 0.21)	0.062
Inside resistance	0.130
Sum of resistances	5.553 m²K/W
Uncorrected U-value	0.180 W/m ² K
Mortar correction	0.000
Air gap correction	0.002
Wall tie correction	
– Staifix HRT4-225	0.000
U-VALUE	0.182 W/m²K

U-Value 0.18



Outside resistance	0.040
19mm sand/cement render (λ 1.00)	0.019
100mm dense 7.3N/mm ² (λ 1.43)	0.070
170mm high performance mineral wool (λ 0.032)	5.313
100mm dense 22.5N/mm ² (λ 1.52)	0.066
13mm dense plaster (λ 0.57)	0.023
Inside resistance	0.130
Sum of resistances	5.661 m²K/W
Uncorrected U-value	0.177 W/m ² K
Mortar correction	0.000
Air gap correction	0.000
Wall tie correction	
– Ancon ST1-300	0.004
U-VALUE	0.181 W/m²K

U-Value 0.17



Outside resistance	0.040
19mm sand/cement render (λ 1.00)	0.019
100mm dense 7.3N/mm ² (λ 1.43)	0.070
50mm low emissivity cavity	0.640
100mm foil-faced partial fill	
PIR/PU board (λ 0.018)	5.556
100mm dense 22.5N/mm ² (λ 1.52)	0.066
13mm dense plaster (λ 0.57)	0.023
Inside resistance	0.130
Sum of resistances	6.544 m²K/W
Uncorrected U-value	0.153 W/m ² K
Mortar correction	0.000
Air gap correction	0.007
Wall tie correction	
– Ancon ST1-300	0.005
U-VALUE	0.165 W/m²K

22.5N/mm² (OVEN-DRY DENSITY approx 2150 kg/m³)

Size mm nominal (L x W x H)	approx weight kg	no. per tonne	multiples of	no. per pack
440×100×215	21•	48	44	88
440×140×215	29•	34	32	64
Coursing bricks				
215×100×65	3.0	330	128	512
215×140×65	4.3	230	96	384

- Blocks in excess of 20kg – please use with caution after assessing the risks.

THERMAL CONDUCTIVITY: λ^*

1.52 W/mK @ 3% m/c (Inside skin)

1.63 W/mK @ 5% m/c (Outside skin)

THERMAL RESISTANCE:

SIZE mm	m ² K/W at:	m ² K/W at:
100mm	3% m/c 0.066	5% m/c 0.061
140mm	3% m/c 0.092	5% m/c 0.086

(m/c = moisture content)

WEIGHTED SOUND INSULATION Rw: **

45 dB (100mm single skin, 258kg/m²)

47 dB (140mm single skin, 345kg/m²)

FIRE RESISTANCE: ***

100mm	2 hrs
140mm	3 hrs

* Calculated from oven dry density

** Calculated using mass law curve - BS8233 (with 2 skins of dense plaster each 25kg/m²)

*** Calculated using table NA 3.2 BS EN 1996-1-2 : 2005 (unplastered separating load bearing single leaf walls)

All products available ex works. Prices on application. Telephone the sales office for further information and a quotation.

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