

STAINLESS STEEL BLACKING



BLACKFAST CHEMICALS LTD

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THE PROCESS

The Blackfast process is a surface conversion process.

The process equipment required is a simple arrangement of polythene tanks and, ideally, running water rinses.

Processing entails degreasing, pickling, blacking and immersion in a dewatering oil, all with intermediate water rinses.



The end user can expect to black, on average, one kilogram of stainless steel (300 series – 0.5mm thick) for approximately £1.01

One litre of concentrated blacking solution will cover between 6 and 8 square metres of stainless steel depending on the substrate to be blacked.



| | |
|----------------|--|
| Step 1. | DEGREASING 15-20 MINUTES AT 20 DEGREES C |
| Step 2. | WATER RINSE 30 SECONDS AT AMBIENT TEMP. |
| Step 3. | ACID PICKLING 10-15 MINUTES AT AMBIENT TEMP. |
| Step 4. | WATER RINSE 30 SECONDS AT AMBIENT TEMP. |
| Step 5. | BLACKING 2 MINUTES AT 20 DEGREES C |
| Step 6. | WATER RINSE 30 SECONDS AT AMBIENT TEMP. |
| Step 7. | DEWATERING 10 MINUTES AT AMBIENT TEMP. |

Allow to air dry for, at least, 8 hours before handling.



CAN I SEE THE PROCESS BEFORE BUYING?

Absolutely you can. We offer two options for you to see if the process is right for you:

1. You can send your own sample components to Blackfast for processing.
2. You can visit our demo facility in Surrey, bring a few components and we will black them for you.



WHAT WILL IT COST?

This will depend on what you would like. There is no obligation to buy tanks or equipment from Blackfast so you can simply buy the chemicals and source your own tanks. We offer various “off the shelf” systems:



Small Basic System

This includes 7 tanks and lids, 2 small heat mats (plug not supplied) training manual and enough chemicals to fill tanks to 20 litres.

Tank size: Approx. 410mm x 262mm x 300mm

Total price delivered to any UK address £ 783.02 + VAT



Small system with frame and baskets



This includes 7 tanks and lids, 2 small heat mats (plug not supplied) training manual, 2 plastic coated steel baskets, 1 frame (in 2 sections for various layout options) and enough chemicals to fill tanks to 20 litres.

Tank size: Approx. 410mm x 262mm x 300mm

Total price delivered to any UK address £1689.62 + VAT

Medium basic system



This includes 7 tanks and lids, 2 large heat mats (plug not supplied) training manual and enough chemicals to fill tanks to 50 litres.

Tank size: Approx. 610mm x 420mm x 420mm

Total price delivered to any UK address £1222.50 + VAT



Medium system with frame and baskets



This includes 7 tanks and lids, 2 large heat mats (plug not supplied) training manual, 2 plastic coated steel baskets, 1 frame (in 2 sections for various layout options) and enough chemicals to fill tanks to 50 litres.

Tank size: Approx. 610mm x 420mm x 420mm

Total price delivered to any UK address £2559.15 + VAT

Bespoke systems

There is no limit on the size of tanks that you can use for the process, our customers tanks range in size from 5 litres to 2000 litres.

Larger systems are usually semi or fully automatic incorporating a hoist system.

These will be quoted on an individual basis.





ONGOING CHEMICAL COST

| PRODUCT | 5 LITRES | 25 LITRES |
|--------------------------------------|---|---|
| Blackfast 152 Blackening solution | £27.02 per litre (1 litre will black 6-8 sq. m) | £19.13 per litre (1 litre will black 6-8 sq. m) |
| Blackfast 513 Acid pickle | Only available in 25 litres | £4.71 per litre |
| Blackfast 716 Degreaser | Only available in 25 litres | £4.83 per litre |
| Blackfast 925 Dewatering oil | £13.24 per litre | £12.86 per litre |

+ Delivery and VAT



PRODUCT SUPPORT

When you have purchased a system, we are more than happy to offer you help with setting up the system.
We will also train the staff who will be using the blacking line if required.

This is free of charge and the training will be certificated.

The operation manual, supplied with the system, has a useful trouble shooting guide.

We are always on the end of the phone and/or email and if we can't solve your blacking issues this way we will, of course, visit you.



HEALTH & SAFETY

Yes, it is chemicals and appropriate PPE should be worn

As a strong acid pickle is used we also recommend that you have extraction over this tank.

Once the chemicals have been diluted to their working tank strength the acid pickle (Blackfast 513) is classed as corrosive, the degreaser (Blackfast 716) is classed as an irritant and the dewatering oil (Blackfast 925) is not classed as hazardous.

The only issue may be the blacking solution as this contains nickel sulphate and is therefore classed as “may cause cancer by inhalation”.

However, nickel sulphate needs to be in the form of dust particles to be inhalable and as the nickel sulphate is dissolved in a solution this is not an issue unless the solution is agitated, sprayed or heated above boiling.

For those that are still a little worried about the blacking solution we can also provide a nickel free blacking solution which is only classed as corrosive.



DISPOSAL

The chemicals:

The solutions are designed to be 'topped up' with neat chemicals when the solutions become weak through use.

Disposal of solutions usually only occurs when tanks have been contaminated.

The degreaser (Blackfast 716), and the dewatering oil (Blackfast 925) can all be disposed of with coolants and cutting oil.

The acid pickle (Blackfast 513) waste is classed as special waste and must be disposed of by a licensed waste disposal contractor.

The blacking solution (Blackfast 152) contains heavy metals and should be disposed of by a specialist waste company.



The rinse waters:

Our experience suggests that at normal rinse water rates, dilution of 2 – 3,000 times takes place of any carried over content of tanks.

Normally these are fine to dispose of to foul sewer but if you want to check with your local water authority we can provide a list of what chemicals and in what quantity is likely to be found in the rinse waters.

If the discharge does become an issue we have water recycle systems available from stock.



WHERE TO BUY

You can call us on: 020 8339 7370

You can fax us on: 020 8339 7371

You can email us:
 or sales@blackfast.com
 tina@blackfast.com

You can use our online shop:

www.blackfast.com

Direct link <http://www.blackfast.com/store/>



WHO WE ARE

Blackfast Chemicals has been established for over 30 years.

Blackfast Chemicals manufactures a unique product for the Blacking of iron and steel at room temperature.

Customers include well known tooling manufacturers, OEMS and hundreds of smaller independent engineers around the world.

Chemical blacking can be done by anyone. It is simple, fast and inexpensive.





Contact Us

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