

RESICHEM 560 Thermal Barrier XF – high build insulative coating

Resichem 560 Thermal Barrier XF is a high build solvent-free low emissivity coating designed to reduce heat transfer from underlying metal surfaces thereby reducing heat loss and the risk of burns through personal contact.

- Solvent free epoxy with high build capability
- Reduces surface temperatures from 140° (284°F) to below 55°C (130°F).
- Apply to process surfaces that are offline (5°C - 45°C/ 41°F - 113°F).

Typical applications

External pipe surfaces	Tank externals	Process vessels	Separators
Fan housings	Mixing vessels	Heat Exchangers	Ovens

Surface Preparation

Metallic Substrates – Mechanical abrasion

1. All oil and grease must be removed from the surface using an appropriate cleaner such as MEK.
2. All surfaces must be mechanically abraded using handheld grinders to **ISO 8501/4 ST3 (SSPC SP3 ST3)**.
3. Once abraded, the surface must be degreased and cleaned using MEK or similar type material.
4. All surfaces must be coated before gingering or oxidation occurs.

Metallic Substrates – Hydro-blasting

1. All surfaces must be hydro-blasted using clean water at 12,000 psi (850bar) to **NACE 5 (SSPC SP13 WJ3-WJ1)**.
2. All surfaces must be coated before gingering or oxidation occurs

Metallic Substrates – Abrasive blast cleaning

1. All oil and grease must be removed from the surface using an appropriate cleaner such as MEK.
2. All surfaces must be abrasive blasted to **ISO 8501/4 Standard SA2.5 (SSPC SP10/ NACE 2)** minimum blast profile of 75 microns (3mil) using an angular abrasive.
3. Once blast cleaned, the surface must be degreased and cleaned using MEK or similar type material.
4. All surfaces must be coated before gingering or oxidation occurs.

PLEASE NOTE: For salt contaminated surfaces the substrate must be pressure washed with clean water and checked for salt contamination, please refer to the surface preparation and pre-application guide for further information.

Mixing

Prior to mixing please ensure the following:

1. The base component is at a temperature between 15-25°C (60-77°F°).
2. The ambient & surface temperature is above 5°C (41°F°).

Once these 2 checks have been met, please proceed with mixing the product.

1. Transfer the contents of the Activator unit into the Base container.
2. Using an electric paddle mixer, mix the 2 components until a uniform material free of any streaks is achieved.
3. From the commencement of mixing the whole of the material should be used within 30 minutes at 20°C (68°F).

Application

Brush or roller applications

1. Pour the mixed material into a paint kettle or paint tray (this will maximise the usable life).
 2. Apply the product to the prepared metallic surface at a wet film thickness of 1-2mm (40-80mil).
 3. Leave to cure for approximately 4 hours at 20°C (68°F°).
 4. Apply a 2nd coat of material at 1-2mm (40-80mil) wet film thickness.
 5. Repeat this process until the recommended film thickness is achieved.
- Please see the film thickness guide overleaf for information on the required thickness of product needed at various operating temperatures.

Spray Applications

1. Spray application should be carried out by airless spray using a 14:1 ratio pump with an attached hot water pump to heat the spray lines. Use Graco C14 Pump.
2. The temperature around the spray lines should be kept around 25-35°C (77-95°F°).
3. Spray pressure of 700psi and use a Refina EEG17 lance to apply the coating to the surface.
4. Use as short a line as possible to maintain product temperature (maximum 8meters/ 26foot).

Resimac Ltd, Unit B, Park Barn Estate, Station Road, Topcliffe, Thirsk, YO7 3SE, United Kingdom

Tel: +44 1845 577498 Email: info@resimac.co.uk Web: www.resimacsolutions.com

TDS560XFheatreduct.rv2.01022019

5. Circulate the product for a short time to achieve a consistent temperature.
6. Place the container of mixed material under the press plate and drop the plate into the tin at 10-15psi. Ensure the plate is properly sealed around the internal circumference of the container.
7. Apply the 1st coat of mixed product to all surfaces at 2-3 mm (80-120mil) wet film thickness.
8. Once the 1st coat of material has cured sufficiently, approximately 4 hours at 20°C (68F°), apply a 2nd coat of material if needed to all surfaces at 2-3mm (80-120mil) wet film thickness.

Film thickness guide

Operating temperature	80°C	100°C	120°C	140°C
Dry film thickness	3mm	4mm	5mm	6mm

Coverage Rates

1ltr (0.25 US gallon) of fully mixed product will give the following coverage rates –
 1m² at 1mm 10.75ft² at 40mil
 0.5m² at 2mm 5.3ft² at 80mil

4ltrs (1.1 US gallon) of fully mixed product will give the following coverage rates –
 4m² at 1mm 43ft² at 40mil
 2m² at 2mm 21.5ft² at 80mil

13ltrs (3.5 US gallon) of fully mixed product will give the following coverage rates –
 13m² at 1mm 139.75ft² at 40mil
 6.5m² at 2mm 69.8ft² at 80mil

Please note that the coverage rates quoted are theoretical and do not take into consideration the profile or condition of the surface being repaired.

Cure Times

At 20°C (68°F) the applied materials should be allowed to harden for the times indicated below before being subjected to the conditions indicated. These times will be extended at lower temperatures and reduced at higher temperatures:

Usable life	30 minutes
Minimum overcoating time	4 hours
Maximum overcoating time	36 hours
Chemical resistance	3 days

Pack Sizes

This product is available in the following pack sizes –
 1ltr (0.25 US Gallon), 4ltrs (1.1 US Gallons), 13ltrs (3.5 US Gallons).

Colour

Base component – Grey
 Activator component – Amber

Over-coating times

Minimum - the material can be over-coated as soon as it is touch dry, approximately 4 hours at 20°C (68°F).

Maximum - the over-coating time should not exceed 36 hours.

Where the maximum over-coating time is exceeded, the material should be allowed to harden before being abraded or flash blasted to remove surface contamination.

Storage Life

5 years if unopened and store in normal dry conditions (15-30°C/ 60-86F°)

Other Technical Documents

Quick Application Guide	-	Brush or roller applications
Quick Application Guide	-	Spray application
Safety Data Sheets	-	Base & Activator components
Product Specification Sheet	-	Technical Performance Information

Health and Safety

Please ensure good practice is observed at all times. Protective gloves, goggles & a disposable coverall must be worn during the mixing and application of this product. Before mixing and applying the material ensure you have read the fully detailed Safety Data Sheet.

Legal Notice:

The data contained within this Technical Data Sheet is furnished for information only and is believed to be reliable at the time of issue. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the responsibility of the customer to determine if the product is suitable for use. Resimac accepts no liability arising out of the use of this information or the product described herein.