

RESICHEM 560 Thermal Barrier XF

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. In addition, the coating provides long term protection of steel structures against corrosion and reduces the potential for condensation on cold pipework. The coating has been designed to be applied to surfaces ranging from 4°C to 50°C. Once cured the material will be operate at temperatures ranging from -20°C to 140°C (-4°F-284°F).

Typical applications

Pipelines, tanks, process vessels and other land and marine structures.

Surface Preparation

All oil and grease must be removed from the surface of the repair using an appropriate cleaner such as MEK.

For optimum performance, the surface should be abrasive blasted to **ISO 8501/4 Standard SA2.5 (SSPC SP10/ NACE 2)** and a minimum blast profile of 75 microns (3mil) using an angular abrasive. Once blast cleaned, the surface must be degreased and cleaned using MEK or similar type material. All surfaces must be coated before gingering or oxidation occurs.

PLEASE NOTE: For salt contaminated surfaces the area must be abrasive blast cleaned as mentioned above and left for 24 hours to allow any ingrained salts to come to the surface. After this 24 hour period the surface must be washed with MEK prior to brush blasting to remove the surface salts. This process must be repeated until all ingrained contaminants have been sweated out of the surface.

Where abrasive blast cleaning is not possible (excluding salt contaminated surfaces) the surface should be roughened by MBX, needle gun or grinding. Under these conditions adhesion levels will not be optimal although still satisfactory for most applications.

Mixing and Application

Warm the Base component to 15-25°C (60-77°F) before mixing and do not apply when the ambient or substrate temperature is below 5°C (40°F) or less than 3°C (37°F) above the dew point

Transfer approximately one third of the contents of the Activator unit into the Base container and mix carefully until incorporated. Add the remainder of the Activator and mix thoroughly until a uniform material free of any streaks is achieved. From the commencement of mixing the whole of the material should be used within 30 minutes at 20°C (68°F). For small volume mixes, the mixing ratio is 2.5:1 by weight or 5.5:1 by volume.

The degree of thermal barrier protection is directly proportional to the applied thickness of the coating and so the thickness required will be dependent on the temperature of the underlying substrate and the temperature reduction required. Typically up to 1000 microns (40mil) is applied in a single coat. A minimum of 5mm (3/16") of cured material is required to reduce 100°C (212°F) touch surface temperature below 50°C (122°F).

Apply the mixed material onto the prepared surface by brush or squeegee. The maximum over coating time for this material is 24 hours. Where the maximum over-coating interval is exceeded, the underlying coat should be allowed to fully harden before being sweep blasted or abraded and cleaned prior to over-coating.

Coverage Rates

13ltrs (3.4 US gallons) of fully mixed product will give the following coverage rates –
 13m² at 1mm 140ft² at 40mil

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	20-25 minutes
Movement without load or immersion	8 hours
Light loading	16 hours
Full loading/water immersion	3 days
Chemical Contact	7 days

Pack Sizes

This product is available in the following pack sizes –
13ltrs (3.4 US gallons)

Colour

Mixed material –Dark Grey
Base component –Dark Grey
Activator component – Amber

Over-coating times

Minimum - the applied material can be over-coated as soon as it is touch dry.

Maximum - the over-coating time should not exceed 24 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/ 60-86°F)

Technical Data

Density	0.53g/cc
Volume capacity	1886cc/Kg
Tensile Shear Adhesion (abrasive blasted mild steel) ASTM D1002	187kg/cm ² - cohesive (2650psi)
Lambda value	0.10W/m.K @ ΔT up to 93°C 0.11W/m.K @ ΔT up to 117°C
Corrosion Resistance (ASTM B117)	Minimum 1000 hours

Health and Safety

Please ensure good practice is observed at all times during the mixing and application of this product. Protective gloves must be worn during the mixing and application of this product. Before mixing and applying the material please ensure you have read the fully detailed Material 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 the products suitability for use. Resimac accepts no liability arising out of the use of this information or the product described herein.