RESICHEM 561 Thermal Barrier – high build insulative coating

Resichem 561 Thermal Barrier 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. The coating has been designed to be applied to hot operating surfaces ranging from 80°C to 140°C.

- Solvent free epoxy with high build capability
- Reduces surface temperatures from 140° (284°F) to below 55°C (130°F).
- Apply to process surfaces in operation from 80°C to 140° C.

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 materia1.
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 surface temperature is between 60-140°C (140-285°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 120 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 HOT metallic surface using a brush or foam roller.

Operating temp	80°C (176°)	100°C (212°F)	140°C (285°F)
1st coat	250 microns (10mil)	250 microns (10mil)	250 microns (10mil)
2nd coat	500 microns (20mil)	250 microns (10mil)	250 microns (10mil)
3rd coat	500 microns (20mil)	500 microns (20mil)	500 microns (20mil)
4th coat	750 microns (30mil)	750 microns (30mil)	750 microns (30mil)
5th coat	1mm (40mil)	1mm (40mil)	1mm (40mil)
6th coat	N/A	1mm (40mil)	1mm (40mil)
7th coat	N/A	1mm (40mil)	1mm (40mil)
8th coat	N/A	N/A	1mm (40mil)
TOTAL	3mm (3/32”)	4.75mm (3/16”)	5.75mm (1/4”)

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

The usable of this material is 120 minutes at 20°C.
Please use the table below as a guide to the minimum overcoating time for the operating temperatures stated.

	90°C (194°)	100°C (212°F)	110°C (230°F)	120°C (248°F)	130°C (266°F)	140°C (284°F)
Overcoat	10 minutes	8 minutes	6 minutes	4 minutes	2 minutes	1 minute

The maximum overcoating window for any operating temperature is 12 hours.

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

Maximum - the over-coating time should not exceed 12 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: