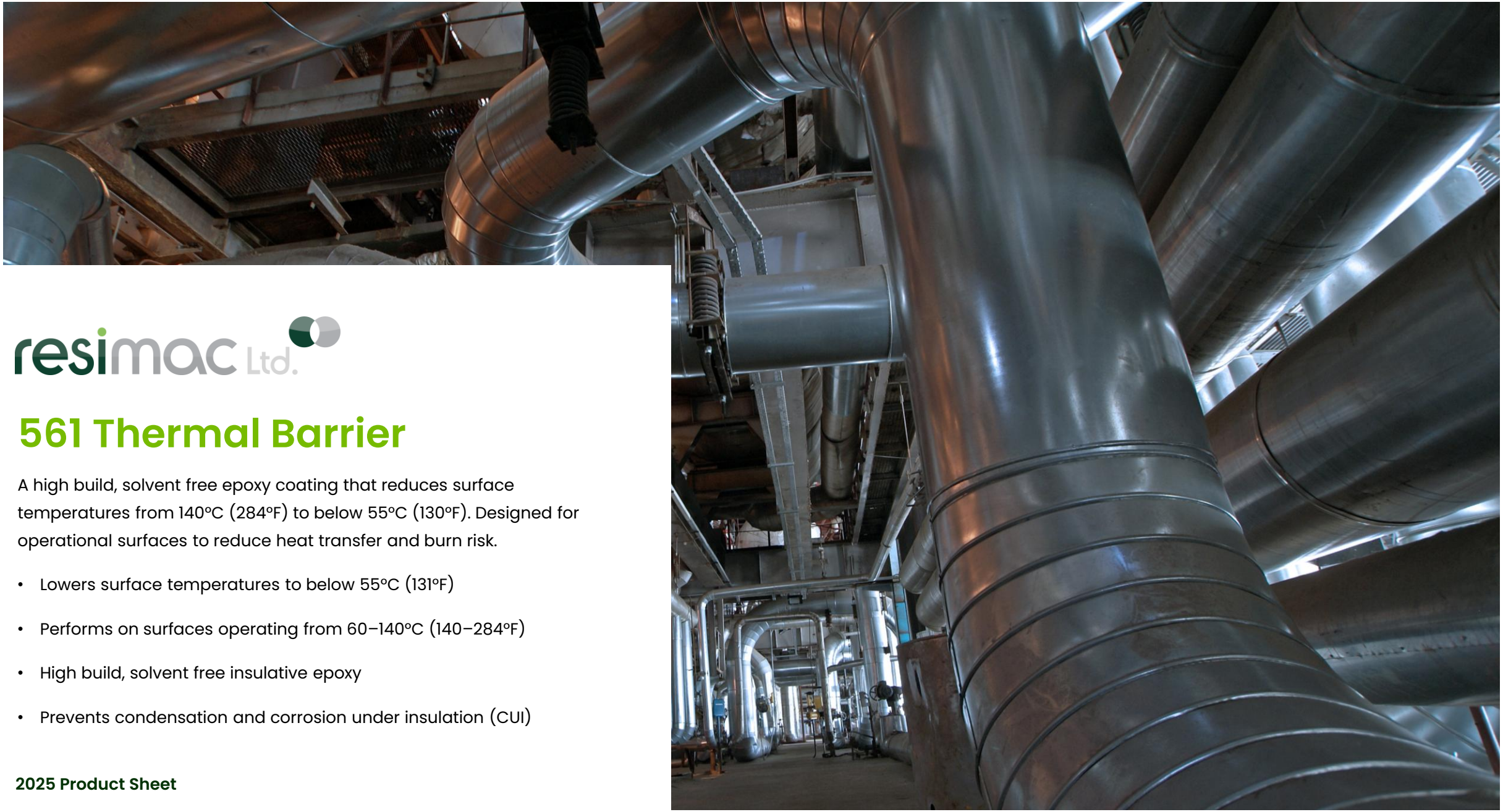


resimac Ltd.

561 Thermal Barrier

A high build, solvent free epoxy coating that reduces surface temperatures from 140°C (284°F) to below 55°C (130°F). Designed for operational surfaces to reduce heat transfer and burn risk.

- Lowers surface temperatures to below 55°C (131°F)
- Performs on surfaces operating from 60–140°C (140–284°F)
- High build, solvent free insulative epoxy
- Prevents condensation and corrosion under insulation (CUI)

2025 Product Sheet

Typical Applications

561 Thermal Barrier is a solvent free, high build epoxy coating developed to reduce heat transfer from operational metal surfaces. The system lowers surface temperatures from up to 140°C (284°F) to below 55°C (131°F), minimising heat loss and reducing the risk of burns through direct contact.

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

Characteristics

Appearance

Base	Highly structured thixotropic liquid
Activator	Amber liquid
Mixed	Thixotropic liquid

Solids Content

100%

Volume Capacity

1886cc/kg

Sag Resistance

Nil at 2000 microns

Density

Base	0.45
Activator	0.95
Mixed	0.53

Mixing Ratio

By weight	2.55:1
By volume	5.5:1

Storage Life

5 years if unopened and stored in normal dry conditions, 15-30°C (59-86°F)

Cure times

Usable Life		Min overcoating time		Max overcoating time	
10°C/50°F	4 hours	90°C/194°F	10 mins	130°C/266°F	2 mins
20°C/68°F	120 mins	100°C/212°F	8 mins	140°C/284°F	1 mins
30°C/86°F	60 mins	110°C/230°F	6 mins	12 hours at any operating temperature.	
40°C/104°F	30 mins	120°C/248°F	4 mins		

Coverage

13ltrs (3.4 US gallons) of fully mixed product will give the following coverage rates

52m² at 250 microns	560ft² at 10mil
26m² at 500 microns	280ft² at 20mil
17m² at 750 microns	182ft² at 30mil
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.

Mechanical Properties

Adhesion
Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 75 micron profile
183kg/ cm² (2600 psi)

Corrosion Resistance
Tested to ASTM B117
Minimum 5000 hours

Flexural Strength
Tested to ASTM D790
522kg/cm² (7400psi)

Hardness
Shore D to ASTM D2240 60

Thermal Conductivity
Tested to ASTM C-335
0.056 BTU/hr/ft/°F
Tested to ISO 8301
0.09 W/mK

Personnel Protection
Tested to ASTM C-155
Pass 5 second exposure test at 140°C (284°F)

Temperature Reduction
Abrasive blast cleaned plate was coated with 3mm of coating and tested at the temperatures stated below:

Surface Temp	*Touch Temp*
80°C (176°F)	32°C (90°F)
90°C (194°F)	35°C (95°F)
100°C (212°F)	38°C (100°F)
110°C (230°F)	41°C (106°F)
120°C (248°F)	44°C (111°F)
130°C (266°F)	47°C (117°F)
140°C (284°F)	50°C (122°F)

Details & Legal

Quality
All Resimac Products are supplied under the scope of the company's fully documented quality system.

Warranty
Resimac warrants that the performance of the product supplied will conform to the typical descriptions quoted within this specification provided material is stored correctly and used according to the procedures detailed in this document.

Pack Sizes
This product is available in the following pack sizes:
4ltrs (1.1 US gallons)
13ltrs (3.4 US gallons)

Application Guide

A. Surface Preparation

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 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.

Health & Safety

Please ensure good practice is observed at all times during the mixing and application of this product. Protective gloves and other recommended personal protective equipment must be worn during the mixing and application of this product.

Before mixing and applying the material, please ensure you have read and fully understood all information.

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.

B. Product Preparation

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).

C. Mixing

Mix the complete unit of material (4ltrs/13ltrs):

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).

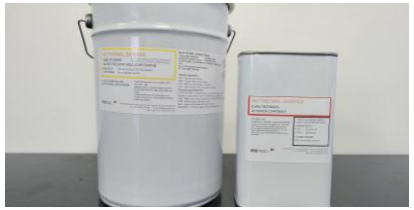
D. Application

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 Temperature	80°C (176°F)	100°C (212°F)	140°C (285°F)
First coat	250 microns (10mil)	250 microns (10mil)	250 microns (10mil)
Second coat	500 microns (20mil)	250 microns (10mil)	250 microns (10mil)
Third coat	500 microns (20mil)	500 microns (20mil)	500 microns (20mil)
Fourth coat	750 microns (30mil)	750 microns (30mil)	750 microns (30mil)
Fifth coat	1mm (40mil)	1mm (40mil)	1mm (40mil)
Sixth coat	n/a	1mm (40mil)	1mm (40mil)
Seventh coat	n/a	1mm (40mil)	1mm (40mil)
Eighth coat	n/a	n/a	1mm (40mil)
Total	3mm (3/32″)	4.75mm (3/16″)	5.75mm (1/4″)

Quick Application Guide



Step 1

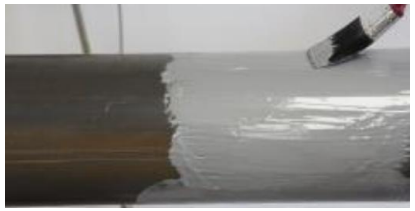
Ensure you have:
1 x base unit
1 x activator unit
1 x spatula
1 x slow speed drill & paddle
1 x paintbrush
(or squeegee)

Step 2

Open the activator tin and pour 1 third of the contents into the base unit, stir with paddle mixer.

Step 3

Add the rest of the contents of the activator tin and mix until fully incorporated and free of streaks.



Step 4

Apply the mixed material to the prepared surface with a brush or squeegee. Allow to cure until touch dry.

Step 5

Repeat process with further coats until recommended dry film thickness is achieved.

About Resimac

A UK based manufacturer of epoxy and polyurethane coatings and repair materials.

From our head office in the heart of rural North Yorkshire, England we supply our range of Epoxy, Polyurethane & Silicone coatings and repair materials to the Oil & Gas, Petrochemical, Marine, Paper & Pulp, Water, Power Generation & Chemical Industries.

Legal Notice

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