

## RESICHEM 561 Thermal Barrier

**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.

### Typical applications

Pipelines, external tank surfaces, evaporators, separators, pumps, valves, process equipment.

### Characteristics

#### Appearance

Base: Highly structured thixotropic liquid  
Activator: Amber liquid  
Mixed: Thixotropic liquid

#### Mixing Ratio

By weight: 2.25:1  
By volume: 5.5:1

#### Density

Base: 0.52  
Activator: 0.95  
Mixed: 0.53

#### Solids content

100%

#### Sag Resistance

Nil at 2000 microns

### Coverage

Coverage rate is dependent on the surface temperature. The table below is based on coverage rates per ltr of product.

WFT Microns/ Mil	Coverage rate m <sup>2</sup> / ft <sup>2</sup>
250/10	4m <sup>2</sup> /44ft <sup>2</sup>
500/20	2m <sup>2</sup> /22ft <sup>2</sup>
1000/40	1m <sup>2</sup> /11ft <sup>2</sup>
2000/80	0.5m <sup>2</sup> /5ft <sup>2</sup>

### Cure Times

The applied material should be allowed to harden for the times indicated below before being subjected to the conditions indicated:

#### Usable life

10°C 4 hours  
20°C 120 minutes  
30°C 60 minutes  
40°C 30 minutes

#### Minimum overcoating time

90°C 10 minutes  
100°C 8 minutes  
110°C 6 minutes  
120°C 4 minutes  
130°C 2 minutes  
140°C 1 minute

#### Maximum overcoating time

12 hours at any operating temperature

### Storage life

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

### Mechanical Properties

#### Adhesion

Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 75 micron profile  
183 kg/ cm<sup>2</sup> (2600 psi)

#### Corrosion Resistance

Tested to ASTM B117  
Minimum 5000 hours

#### Flexural Strength

Tested to ASTM D790  
522kg/cm<sup>2</sup> (7400psi)

#### Hardness

Shore D to ASTM D2240  
80

#### Thermal Conductivity

Tested to ASTM C-335  
0.056 BTU/hr/ft<sup>2</sup>/°F  
Tested to ISO 8301  
0.09 W/mK

#### Personnel Protection

Tested to ASTM C-155  
Pass 5 second exposure test at 140°C

#### Heat Resistance

Resistant to dry heat up to 140°C.

## Temperature Reduction

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

<i>Surface Temperature</i>	<i>Touch Temperature</i>
80°C	32°C
90°C	35°C
100°C	38°C
110°C	41°C
120°C	44°C
130°C	47°C
140°C	50°C

For more detailed information refer to the Resimac Technical Centre for advice.

## 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 the Technical Data Sheet for the material.

## Health and 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 the detailed Material Safety Data Sheet

**Legal Notice:** The data contained within this Product Specification 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.