



502 SE SF

A solvent free, high build epoxy coating designed for single coat application, providing corrosion protection and clear demarcation in aggressive environments.

- Single coat system for rapid application and reduced downtime
- Bonds to mechanically prepared or hydro-blasted surfaces
- Provides long term corrosion resistance in aggressive environments
- Supplied in safety yellow for high visibility pipework and zone marking

2025 Product Sheet



Typical Applications

502 FE SF is a high build, solvent free epoxy coating developed for long term corrosion protection in aggressive marine and industrial environments. Its advanced formulation tolerates less-than-ideal surface preparation, bonding effectively to both mechanically abraded and hydro-blasted metallic substrates, ideal for refurbishment and maintenance work.

- Sheet and bearing piles
 - Concrete structures
 - Tank base sealing
 - Cranes and barriers
- Pipe surfaces
 - Structural steel
 - External tanks
 - Floor surfaces

Cure times

Usable Life		Min overcoating time		Max overcoating time		Water/sea water immersion		Chemical Immersion	
10°C/50°F	120 mins	10°C/50°F	20 hours	10°C/50°F	72 hours	10°C/50°F	6 days	10°C/50°F	14 days
20°C/68°F	60 mins	20°C/68°F	10 hours	20°C/68°F	36 hours	20°C/68°F	3 days	20°C/68°F	7 days
30°C/86°F	30 mins	30°C/86°F	5 hour	30°C/86°F	18 hours	30°C/86°F	36 hours	30°C/86°F	3.5 days
40°C/104°F	15 mins	40°C/104°F	2.5 hours	40°C/104°F	9 hours	40°C/104°F	18 hours	40°C/104°F	2 days

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

Characteristics

Appearance		Density	
Base	Highly structured thixotropic liquid	Base	1.75
Activator	Amber liquid	Activator	1.03
Mixed	Thixotropic liquid	Mixed	1.51
Solids Content		Mixing Ratio	
100%		By weight	3.5:1
Volume Capacity		By volume	2:1
657cc/kg		Storage Life	
Sag Resistance		5 years if unopened and stored in normal dry conditions, 15–30°C (59–86°F)	
Nil at 400 microns			

Mechanical Properties

Abrasion Resistance

Taber CS17 Wheels/1kg load
138mg loss/1000 cycles
0.22cc loss/1000 cycles

Compressive Strength

Tested to ASTM D 695
649kg/cm² (9200psi)

Corrosion Resistance

Tested to ASTM B117
Minimum 5000 hours

Flexural Strength

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

Hardness

Shore D to ASTM D2240: 80

Impact Resistance

Tested to ASTM G14 2.0 joules

Adhesion

Tensile Shear to ASTM D1002 on
abrasive blasted mild steel with
75 micron profile
194kg/ cm² (2750 psi)

Cathodic Disbondment

Tested to ISO 21809-3:2016
28 days, 1.5v, 3% NaCl

23°C (73°F)	2.3mm
65°C (149°F)	5.1mm
95°C (203°F)	7.7mm

Heat Resistance

Suitable for use in immersed
conditions at temperatures up to
60°C (140°F)
Resistant to dry heat up to 200°C
(392°F) dependant on load

Details & Legal

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:
1kg (2.2lbs)

Coverage

1kg (2.2lbs) of fully mixed product
will give the following coverage
rates
2.19m² at 300microns 23ft² at 12mil

Quality

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

Chemical Resistance

The product resists attack by a
wide variety of inorganic acids,
alkalis, salts and organic media
including:

Brine	40°C (104°F)
Crude Oil	40°C (104°F)
De-ionised Water	30°C (86°F)
Diesel	40°C (104°F)
Hydrochloric Acid 20%	40°C (104°F)
Naphtha	40°C (104°F)
Phosphoric Acid 30%	40°C (104°F)
Sodium Hydroxide 50%	40°C (104°F)
Sulphuric acid 20%	40°C (104°F)

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 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.

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.

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: Hydro-blasting:

- 1 All oil and grease must be removed from the surface using an appropriate cleaner such as MEK.
- 2 All surfaces must be hydro-blasted using clean water at 12,000 psi (850bar) to NACE 5 (SSPC SP13 WJ3-WJ1).
- 3 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

If part mixing the unit of material:

- 1 The base component is at a temperature between 15-25°C (60-77°F).
- 2 The ambient & surface temperature is above 10°C (50°F).
- 3 The ambient & surface temperatures are not less than 3°C (6°F) above the dew point.

C. Mixing

Mix the unit of material in full (1kg):

- 1 Transfer the contents of the Activator unit into the Base container.
- 2 Using a spatula, 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 60 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 Using a 50mm (2") wide synthetic brush, stripe coat all edges, joints, corners and equipment with the mixed material.
- 3 The stripe coat must be approximately 100mm (4") wide, at 300 microns (12mil) wet film thickness.
- 4 Once the stripe coat has cured sufficiently and is capable of being overcoated, apply the mixed product to all surfaces using a foam roller at 300 microns (12mil) wet film thickness.

Spray applications:

- 1 Spray application should be carried out by airless spray using a 60:1 ratio pump with an attached hot water pump to heat the spray lines.
- 2 The temperature around the spray lines should be kept around 25-35°C (77-95°F).
- 3 Spray pressure of 3600psi and a tip size of 19-23 thou should be used.
- 4 Use as short a line as possible to maintain product temperature (maximum 8meters/26foot).

Circulate the product for a short time to achieve a consistent temperature.

Apply the mixed product to all surfaces at 300 microns (12mil) wet film thickness.

Quick Application Guide



Step 1

Ensure you have:

- 1 x base unit
- 1 x activator unit
- 1 x spatula
- 1 x foam roller & tray
- 1 x brush



Step 2

Open the activator tin and pour contents into the base unit.



Step 3

Mix the two components using the spatula until uniform in colour and streak free.



Step 4

To ensure the product is fully mixed check the material for any colour difference. The mixed material should be a consistent mix.

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

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.

Information & Enquiries

For more information and technical data please visit our website or contact us.

www.resimacsolutions.com

info@resimac.co.uk

+44 (0) 1845 577498

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

