resimac Ltd.

508 UPVU

Solvent based polyurethane topcoat with a high gloss finish, designed for long term UV and corrosion protection on primed steel and concrete.

- UV-stable polyurethane topcoat for external durability
- High gloss finish with excellent weather and colour retention
- Compatible with 506 Aluprime and 501 CRSG
- Available in a wide range of standard and custom colours

2025 Product Sheet

Typical Applications

508 UVPU is a high gloss, solvent based polyurethane coating developed for the long term protection of steel and concrete structures. The system resists UV degradation, corrosion, and environmental weathering, making it ideal for use in external industrial and marine environments.

- External tank surfaces
- Structural concrete
- Pipeline surfaces
- Structural steel

Characteristics

Appearance

Base	Thin film liquid
Activator	Clear liquid
Mixed	On request

Solids Content

55%

Volume Capacity

705cc/kg

Sag Resistance

Nil at 150 microns

Density

Base	1.514
Activator	1.035
Mixed	1.418

Mixing Ratio

By weight	5.8:1
By volume	4:1

Storage Life

2 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	60 mins	10°C/50°F	3 hours	10°C/50°F	72 hours
20°C/68°F	30 mins	20°C/68°F	90 mins	20°C/68°F	36 hours
30°C/86°F	15 mins	30°C/86°F	60 mins	30°C/86°F	18 hours
40°C/104°F	7.5 mins	40°C/104°F	25 mins	40°C/104°F	9 hours

Coverage

5ltrs (1.3 US gallon) of fully mixed product will give the following coverage rates

50m² at 100 microns	536ft² at 4mil

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

Salt Fog Resistance
Tested to ASTM B117
Unaffected after 10,000 hrs

Humidity Resistance
Tested to BS3900 Part F2
Unaffected after 5000 hours

Corrosion Resistance
Tested to ASTM B117
Minimum 5000 hours

UV Resistance
Shore D to ASTM G53
Unaffected after 1000 hours

Adhesion
Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 75 micron profile
195kg/cm² (2770 psi)

Heat Resistance
Suitable for use in immersed conditions at temperatures up to 50°C (122°F). Resistant to dry heat up to 130°C (266°F) dependent on load.

Details & Legal

Pack Sizes
This product is available in the following pack sizes:
5ltrs (1.3 US gallon)

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.

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

Application

508 UVPU has been designed to be applied in 2 coats at 100 microns (4mil) wet film thickness per coat.

Brush or roller applications:
The material should be applied at a target thickness of 100 microns (4mil) WFT per coat or 55 micron DFT.

At 100 microns (508 UVPU) will have a theoretical coverage rate of 10m² per 1ltr per coat.

Application Guide

A. 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 material.
4. Prime the prepared metallic surface with 506 Aluprime (applied at 150 microns/6mil WFT) or 501 CRSG (applied at 250 microns/10mil WFT).

Metallic Substrates – Resimac Corrosion Protection System

The coating must be used as part of a Resimac corrosion protection system, 508 UVPU can be used as a UV stable top coat to surfaces primed with 506 Aluprime or 501 CRSG

Concrete Surfaces – Resimac Corrosion Protection System

The coating must be used as part of a Resimac corrosion protection system, 508 UVPU can be used as a UV stable top coat to surfaces primed with 503 SPEP or 505 Damp Seal

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.

Existing Concrete Surfaces:

1. If the concrete surface is contaminated, pressure wash using clean water.
2. Once the concrete is dry, lightly abrasive blast or scarify taking care not to expose the aggregate.
3. Clean all dust and debris from the surface.

   Prime the prepared surface with 503 SPEP (applied at 150 microns/6mil WFT) or 505 Damp Seal (applied at 150 microns/6mil WFT).

New Concrete Surfaces:

1. Allow new concrete to cure for a minimum of 21 days and treat to remove any surface laitance.
2. Check the moisture content of the concrete prior to coating (8% moisture content or below).
3. Lightly scarify the surface taking care not to expose the aggregate.
4. Clean all dust and debris from the surface.
5. Prime the prepared surface with 503 SPEP (applied at 150 microns WFT) or 505 Damp Seal (applied at 150 microns WFT).

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 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.
4. Humidity is below 85%.

C. Mixing

Mix the complete unit of material (5ltrs):

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 30 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 100 microns (4mil) wet film thickness.
4. Once the stripe coat has cured sufficiently and is capable of being overcoated, apply the 1st coat of mixed product to all surfaces at 100 microns (4mil) wet film thickness.
5. If required once the 1st coat of material has cured sufficiently, approximately 90 minutes at 20°C (68F°), apply a 2nd coat of material to all surfaces at 100 microns (4mil) wet film thickness.

Airless spray applications:

1. Using a paintbrush, stripe coat all edges, corners, and areas inaccessible to a spray application.
2. Material should be sprayed using an airless system capable of producing 2000-3000psi (135-200 bar).
3. Material does not require thinner, however if necessary up to 10% of a PU based thinner can be added to the coating (for further information on suitable thinners please contact the Resimac Technical department).
4. Spray using 13-19 thou sized tips (0.33-0.48mm).
5. Spray apply the coating at a nominal 100 micron (4 mil) wet film thickness.

   Clean equipment with MEK or other similar solvent.

Conventional spray applications:

1. Using a paintbrush, stripe coat all edges, corners, and areas inaccessible to a spray application.
2. Material can be sprayed via pressure pot, suction or gravity fed spray equipment.
3. A tip size of 1.2-1.4mm (47-55 thou) and spraying pressure of 60-100psi (4-7 bar).
4. Material will require thinning by up to 10% of a PU based thinner (for further information on suitable thinners please contact the Resimac Technical department).
5. Apply to a nominal wet film thickness of 100-110 microns (4-4.5 mil).
6. Clean equipment with PU based thinner or other suitable solvent.

Quick Application Guide

Spray applications:

Step 1

Ensure you have:
1 x base unit
1 x activator unit
1 x spatula
1 x slow speed drill & paddle

Step 2

Pour the entire contents of the activator container into the base container.

Step 3

Mix thoroughly, taking to care To ensure any unmixed base component is scraped down from the edges of the container using a spatula. Continue mixing until a streak free, uniform material is achieved.

Step 4

Where required, stripe coat, by brush, edges, corners, and all areas inaccessible to spraying with 100 microns WFT 508 UVPU.

Step 5

Feed mixed material into Suitable single leg airless Spray unit. Unit should be fitted with ¼" or 3/8" hoses and 15-19 thou tip size. Typical spray pressure is 2,500-3,500 psi (170-200Bar). Spray to 100 microns WFT.

Step 6

On completion, clean unit out With MEK or other suitable Thinner.

Quick Application Guide

Brush or roller applications:

Step 1

Ensure you have:
1 x base unit
1 x activator unit
1 x spatula
1 x slow speed drill & paddle

Step 2

Pour the entire contents of the activator container into the base container.

Step 3

Mix thoroughly, taking to care To ensure any unmixed base component is scraped down from the edges of the container using a spatula. Continue mixing until a streak free, uniform material is achieved.

Step 4

Apply a 100mm (4") wide stripe coat to edges, joints, and corners using a 50mm (2") synthetic brush at 100 microns (4mil) WFT. Once cured, apply first full coat to all surfaces at 100 microns (4mil) WFT using brush or roller.

Step 5

After 90 minutes at 20°C (68°F), apply second coat at 100 microns (4mil) WFT if required.

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

Information & Enquiries

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

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