# 506 Aluprime

A solvent based epoxy primer designed for long term corrosion protection on steel and concrete structures, even in cold, damp conditions.

- Applies to wet/damp surfaces for versatile application
- Adheres to green concrete for early-stage protection
- Cures in cold/damp conditions down to 5°C (41°F)
- High strength primer for both metallic and concrete surfaces

**2025 Product Sheet**

## Typical Applications

506 Aluprime is a solvent based epoxy designed for long term corrosion protection in demanding environments. Its surface tolerant formulation allows application on damp metallic surfaces and green concrete, ensuring a strong bond even in low temperatures and high moisture conditions, where traditional coatings may struggle.

- Cold water lines
- Pipework
- External tank surfaces
- Structural steel
- Sheet and bearing piles
- Process equipment

## Characteristics

**Appearance**

| | |
|---|---|
| Base | Thin film liquid |
| Activator | Amber liquid |
| Mixed | Grey solvent based liquid |

**Solids Content**

80%

**Volume Capacity**

800cc/kg

**Sag Resistance**

Nil at 200 microns

**Density**

| | |
|---|---|
| Base | 1.32 |
| Activator | 1.03 |
| Mixed | 1.25 |

**Mixing Ratio**

| | |
|---|---|
| By weight | 4:1 |
| By volume | 3:1 |

**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 | | Max overcoating time with 506 Aluprime or 508 UVPU | |
|---|---|---|---|---|---|---|---|
| 10°C/50°F | 4 hours | 10°C/50°F | 12 hours | 10°C/50°F | 72 hours | 10°C/50°F | 5 days |
| 20°C/68°F | 2 hours | 20°C/68°F | 6 hours | 20°C/68°F | 36 hours | 20°C/68°F | 72 hours |
| 30°C/86°F | 60 mins | 30°C/86°F | 3 hours | 30°C/86°F | 18 hours | 30°C/86°F | 36 hours |
| 40°C/104°F | 30 mins | 40°C/104°F | 90 mins | 40°C/104°F | 9 hours | 40°C/104°F | 18 hours |

## Coverage

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

| | |
|---|---|
| 33m² at 150 microns | 358ft² at 6mil |

*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 5000 hrs

**Humidity Resistance**
Tested to BS3900 Part F2
Unaffected after 5000 hours

**Hardness**
Shore D to ASTM D2240: 80

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

**Heat Resistance**
Suitable for use in immersed conditions at temperatures up to 40°C (104°F)
Resistant to dry heat up to 120°C (248°F) dependent on load

## 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:
5ltrs (1.32 US gallon)

**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) |
| Diesel | 40°C (104°F) |
| Hydrochloric Acid 10% | 40°C (104°F) |
| Naphtha | 40°C (104°F) |
| Phosphoric Acid 25% | 40°C (104°F) |
| Sodium Hydroxide 35% | 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 50 microns (2mil) 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. 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.

**Existing Concrete Preparation:**

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.

*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 ambient & surface temperature is above 5°C (41°F).

## C. Mixing

**Mix the complete unit of material (5ltrs):**

1. please ensure as much of the base and activator is dispensed from the plastic container onto a clean plastic mixing surface.
2. Mix using the spatula provided until a uniform material free of any streakiness is achieved while ensuring no unmixed material is left on the spatula or the mixing surface.
3. From the commencement of mixing the whole of the material should be used within 2 hours at 20°C (68°F).

## D. Application

**Brush and roller application:**

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 150 microns (6mil) 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 150 microns (6mil) wet film thickness.
5. If required once the 1st coat of material has cured sufficiently, approximately 6 hours at 20°C (68°F), apply a 2nd coat of material to all surfaces at 150 microns (6 mil) wet film thickness.

**Airless spray application:**

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. Spray using 13-21 thou sized tips (0.33-0.53mm).
4. Spray apply the coating at a nominal 150 micron (6 mil) wet film thickness.
5. Clean equipment with MEK or other similar solvent.

*PLEASE NOTE: For small applications, 506 Aluprime may be sprayed using conventional air spray equipment. Please contact the Resimac Technical department for detailed information.*

# Quick Application Guide

**Brush and roller application:**

### Step 1

Ensure you have:
1 x base unit
1 x activator unit
1 x spatula
1 x 50mm (2″) synthetic brush
(or) 1 x medium pile roller
1 x slow speed drill and
paddle

### Step 2

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

### Step 3

Mix the two components using the spatula provided, ensure any unmixed material around the edges is mixed.

### Step 4

Pour the mixed materials into A paint tray or paint kettle.

### Step 5

Using a roller or brush apply the product to the prepared surface at a wet film thickness of 150 microns.

# Quick Application Guide

**Standard airless spray application:**

## Step 1

Ensure you have:
1 x base unit
1 x activator unit
1 x spatula
1 x brush
1 x slow speed drill and paddle
1 x graco
1 x 60 king pump with 13-21 thou tip sizes
1 x MEK cleaner

## Step 2

Pour the entire contents of the activator container into the base container. Mix the two components using the spatula provided, ensure any unmixed material around the edges is mixed.

## Step 3

Where required, stripe coat, by brush, edges, corners, and all areas inaccessible to spraying with 150 microns.

## Step 4

Feed mixed material into suitable single leg airless spray Unit. Unit should be fitted with ¼" or 3/8" hoses and 13-21 thou tip size. Typical spray pressure is 2,500-3,500psi (170-200Bar). Spray to 150 microns (3mil) wft.

## Step 5

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

## 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

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