

## 301 Epoxy Resin and Hardener

**301 Epoxy Resin and Hardener** is a two component thixotropic solvent free epoxy material used for injection applications, bonding of dissimilar materials and for use in conjunction with a range of tapes and fabrics to produce high strength composite repairs.

### Typical applications

The product can be applied to manually prepared surfaces and is ideal for encapsulating problem pipework ranging from 1"-42" diameter, once cured the system can resist up to 300psi pressure. For injection applications the material can be pumped into voids up to 15mm in depth.

### Characteristics

#### Appearance

Base: White gel  
Activator: Light yellow gel  
Mixed: Opaque gel

#### Mixing Ratio

By weight: 2:1  
By volume: 2:1

#### Density

Base: 1.15  
Activator: 1.15  
Mixed: 1.15

#### Volume Capacity

860cc/Kg

#### Solids content

100%

#### Sag Resistance

Nil at 3mm

#### Coverage

300gm (0.66lb) of fully mixed product will give the following coverage rates –  
0.50m<sup>2</sup> at 500 microns  
5.3ft<sup>2</sup> at 20mil  
0.25m<sup>2</sup> at 1mm  
2.7ft<sup>2</sup> 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.*

#### 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 50 minutes  
20°C 25 minutes  
30°C 12.5 minutes  
40°C 6 minutes

#### Touch dry

10°C 4 hours  
20°C 2 hours  
30°C 1 hours  
40°C 30 mins

#### Hard dry

10°C 12 hours  
20°C 6 hours  
30°C 3 hours  
40°C 90 mins

#### Full Cure

10°C 6 days  
20°C 3 days  
30°C 1.5 days  
40°C 18 hours

#### 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  
148kg/ cm<sup>2</sup> (2100psi)

**Pull off Adhesion** to ASTM D4541 on abrasive blasted mild steel with 75 micron profile  
244 kg/ cm<sup>2</sup> (3480psi)

#### Compressive strength

Tested to ASTM D695  
1034kg/cm<sup>2</sup> (14700psi)

#### Corrosion Resistance

Tested to ASTM B117  
Minimum 5000 hours

#### Flexural Strength

Tested to ASTM D790  
912kg/cm<sup>2</sup> (13,000psi)

#### Hardness

Rockwell R to ASTM D785  
85

#### Heat Distortion

Tested to ASTM D648 at 264psi fibre stress.  
20°C Cure 70°C

#### Heat Resistance

Suitable for use in immersed conditions at temperatures up to 70°C.

Resistant to dry heat up to 150°C dependent on load.

#### Food Contact

USDA compliant for incidental food contact.

## Approvals

Approved by BUREAU VERITAS for Surface Protection and Cold Repair Products applied to Marine Vessels.

Certificate No: 55258/AO BV  
Expiry: 24<sup>th</sup> March 2024

## Chemical Resistance

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

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.