

## RESIMETAL 301 Epoxy Resin & Hardener – solvent free epoxy gel for injection applications and pipe wrapping

Resimetal 301 Epoxy Resin & Hardener is a two component solvent free epoxy gel 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.

- Apply to mechanically & abrasive blast cleaned surfaces
- Ideal for gap filling and injection applications
- Ideal for large diameter pipe wrapping

### Typical Applications

Injection applications                      Gap filling                      Bonding dissimilar materials                      Pipe wrapping

### Surface Preparation

#### Injection Applications      Bonding of dissimilar materials      Encapsulation using technical fabrics

1. Where possible all surfaces must be abrasive blast cleaned to ISO 8501/4 Standard SA2.5 (SSPC SP10/ NACE 2) and with a minimum blast profile of 75 microns using an angular abrasive.
2. However this product is tolerant of less than ideal surface preparation and will adhere to surfaces prepared using Hand tools, Mechanical Tools and Hydro-blasting.
3. Where there is corrosion pitting, this should be rebuilt using Resimac 302 Epoxy Repair Cement which can also be used to enhance adhesion onto poorly prepared surfaces.

**\*PLEASE BE AWARE THAT FOR THE BEST RESULTS THE REPAIR SURFACE SHOULD BE ABRASIVE BLAST CLEANED. IF USING INFERIOR PREPARATION TECHNIQUES THIS WILL AFFECT THE PERFORMANCE OF THE PRODUCT.**

### Mixing

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).

Once these 2 checks have been met, please proceed with mixing the product.

1. Transfer the contents of the Activator unit into the Base container.
2. Using the spatula provided (300-450gm units) or an electric paddle mixer (6kg unit), 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 25 minutes at 20°C (68°F).

### Application

**Injection Applications** - dispense the product into a one component cartridge up to 1ltr volume (0.25 US gallon). Using a single component injection pump, air fed, the material can be injected into gaps to bond dissimilar materials.

**Bonding dissimilar materials** – the mixed material can be used to bond a wide range of material including, concrete, plastic and metal. Apply the product using a brush or applicator tool at a wet film thickness range of 1mm – 4mm (40mil – 3/16”).

**Encapsulation using technical fabrics** – the mixed product can be used in conjunction with glass tape, glass cloth, chop strand matting and linen scrim. The use of a technical fabric is dependent on the type of repair to be performed. Typically the following repairs are performed with these materials –

<b>3 layer pipe wrapping</b>	<ol style="list-style-type: none"> <li>1. Apply 301 Epoxy Resin and Hardener at 1mm (40mil) WFT Wrap 50/100mm glass tape around pipe with a 50% overlap</li> <li>2. Apply 301 Epoxy Resin and Hardener at 500 microns (20mil) WFT Wrap 50/100mm glass tape around pipe with a 50% overlap</li> <li>3. Repeat step 2, and finish with a 500 microns (20mil) coat of 301 Epoxy Resin</li> </ol>
<b>3 layer pipe t- joint</b>	<ol style="list-style-type: none"> <li>1. Apply 301 Epoxy Resin and Hardener at 1mm (40mil) WFT Cut the glass tape in to strips and lay over the surface where the 2 pipes meet Ensure there are at least 3 layers of 301 Resin and Glass tape around the joint area</li> <li>2. Once all the t-Joint area has been coated apply 301 Epoxy Resin at 1mm (40mil) WFT to all the repair area wrap 50/100mm glass tape around pipe with a 50% overlap</li> <li>3. Repeat step 2, and finish with a 500 microns (20mil) coat of 301 Epoxy Resin</li> </ol>

## Coverage Rates

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

At 20°C (68F°) the applied materials should be allowed to harden for the times indicated below before being subjected to the conditions indicated. These times will be extended at lower temperatures and reduced at higher temperatures:

Usable life                      25 minutes

Touch dry                        2 hours

Hard dry                         24 hours

Full cure                         3 days

## Pack Sizes

This product is available in the following pack sizes –

300gm (0.66lb), 450gm (0.99lb) 6kg (13.2lb)

## Colour

Mixed material – Opaque

Base component – White gel

Activator component – Light yellow gel

## Over-coating times

Minimum - the applied material can be over-coated as soon as it is touch dry.

Maximum - the over-coating time should not exceed 8 hours.

Where the maximum over-coating time is exceeded, the material should be allowed to harden before being abraded or flash blasted to remove surface contamination.

## Storage Life

5 years if unopened and store in normal dry conditions (15-30°C/ 60-86°F)

## Other Technical Documents

Quick Application Guide	-	Hand application
Safety Data Sheets	-	Base & Activator components
Product Specification Sheet	-	Technical Performance Information

## Health and Safety

Please ensure good practice is observed at all times. Protective gloves, goggles & a disposable coverall must be worn during the mixing and application of this product. Before mixing and applying the material ensure you have read the fully detailed Safety Data Sheet.

## Legal Notice:

The data contained within this Technical Data Sheet 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 if the product is suitable for use. Resimac accepts no liability arising out of the use of this information or the product described herein.