

## 302 Epoxy Repair Paste

Surface tolerant, high build solvent free epoxy paste for durable metal repairs up to 20mm in one application.

- High build application to 20mm in a single coat
- Solvent free formulation for low VOCs and safer use
- Surface tolerant adhesion to hand or mechanically prepared metal
- Economical coverage with minimal waste

2025 Product Sheet

# Typical Applications

302 Epoxy Repair Paste is a two component, solvent free epoxy system engineered for on-site metal restoration where only minimal surface preparation is possible. Its high build formulation allows single coat repairs up to 20 mm without slumping, filling pits, voids and corrosion damage with ease.

- Internal and external tank surfaces
  - Pipelines and pipework
  - Damaged flanges & sealing faces
- Leaking tank seams
  - Plate bonding
  - Rebuilding corrosion pits and worn metal areas

# Cure times

Usable Life		Min overcoating time		Max overcoating time		Full Cure	
10°C/50°F	60 mins	10°C/50°F	12 hours	10°C/50°F	24 hours	10°C/50°F	4 days
20°C/68°F	30 mins	20°C/68°F	6 hours	20°C/68°F	12 hours	20°C/68°F	2 days
30°C/86°F	15 mins	30°C/86°F	3 hours	30°C/86°F	6 hours	30°C/86°F	1 day
40°C/104°F	7.5 mins	40°C/104°F	1.5 hours	40°C/104°F	3 hours	40°C/104°F	12 hours

# Characteristics

Appearance		Density	
Base	Dark brown paste	Base	1.60
Activator	Light brown paste	Activator	1.60
Mixed	Dark brown paste	Mixed	1.60
Solids Content		Mixing Ratio	
100%		By weight	1:1
		By volume	1:1
Volume Capacity		Storage Life	
625cc/kg		5 years if unopened and stored in normal dry conditions, 15-30°C (59-86°F)	
Sag Resistance			
Nil at 20mm			

# Coverage

1kg (2.2lb) of fully mixed product will give the following coverage rates

0.625m² at 1mm	6.7ft² at 40mil
0.313m² at 2mm	3.3ft² at 80mil
0.208m² at 3mm	2.2ft² at 1/8"

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

### Abrasion Resistance

Manually prepared steel plate  
115kg/cm<sup>2</sup> (1640psi)

### Compressive Strength

Tested to ASTM D695  
735kg/cm<sup>2</sup> (10,450psi)

### Corrosion Resistance

Tested to ASTM B117  
Minimum 5000 hours

### Flexural Strength

Tested to ASTM D790  
298kg/cm<sup>2</sup> (4250psi)

### Hardness

ASTM D256, Shore D: 85

### 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 244kg/cm<sup>2</sup> (3480psi)

### Heat Distortion

Tested to ASTM D648 at 264psi fibre  
stress.

20°C (68°F) Cure	58°C (136°F)
100°C (212°F) Cure	98°C (208°F)

### Heat Resistance

Suitable for use in immersed  
conditions at temperatures up to  
70°C (158°F)  
Resistant to dry heat up to 150°C  
(302°F) dependent on load.

## Details & Legal

### 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.

### Pack Sizes

This product is available in the  
following pack sizes:  
200gm (0.44lb)  
1kg (2.2lbs)  
3kg (6.6lbs)

### 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.

### MIL-PRF-24176C Qualification

This Resimac product has been  
approved under MIL-PRF-24176C for  
Type I and II applications in  
cement, epoxy, metal repair, and  
hull smoothing.

# Application Guide

## A. Surface Preparation

### Metallic Substrates: Hand tools

- 1 The repair surface must be cleaned with solvent to ensure any oil, grease or surface contaminants are removed.
- 2 All surfaces must be cleaned using wire brush, metal file, coarse sandpaper etc.
- 3 Once abraded, the surface must be cleaned with solvent to ensure as much oil and grease is removed.

### Metallic Substrates: Mechanical tools

- 1 Wipe away any ponding oil or grease using a solvent wipe.
- 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 cleaned with solvent.

*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.*

### 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.

## 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).

**If part mixing the unit of material:**

- 1 Using the spatula provided place 1 equal measure from the base unit onto the mixing board provided.
- 2 Clean the spatula thoroughly.
- 3 Then take 1 equal measure from the activator unit and place alongside the base measure.
- 4 Mix the 2 components together until you have a streak free mix on the mixing board.
- 5 Ensure there is no unmixed material on the spatula or mixing board.

## C. Mixing

**If mixing a complete unit of material (200gm/1kg/3kg):**

- 1 Dispense as much of the base and activator units onto a clean mixing surface.
- 2 Mix the 2 components together until you have a streak free mix on the mixing board.
- 3 Ensure there is no unmixed material on the spatula or mixing board.
- 4 From the commencement of mixing, the material should be used within 30 minutes at 20°C (68°F).

## D. Application

- 1 Using a spatula or applicator tool, apply the material to the prepared surface.
- 2 Ensure the product is pressed into any holes, scars or cracks.
- 3 Once the repair has been completed smooth off any imperfections using a gloved hand.

## Quick Application Guide



### Step 1

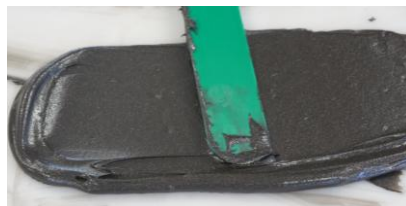
Ensure you have:

- 1 x base unit
- 1 x activator unit
- 1 x spatula
- 1 x applicator
- 1 x clean mixing board



### Step 2

Take equal measures of the base and activator material.



### Step 3

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



### Step 4

To ensure the product is fully mixed create a diamond pattern on the surface and look for any areas which are not black in colour.



### Step 5

Once the material is fully mixed use the applicator tool to apply the metal repair paste to the surface.



## 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.

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