resimac Ltd.

107 Metal Repair Paste XL

A high build epoxy repair paste with an extended usable life, allowing for precise and controlled repairs in warmer climates. Once cured, it can be shaped, drilled, or sanded for metal restoration.

- Applies up to 25mm thick without slumping
- Extended usable life for warm climates and controlled
- Easily machined, smoothed, or reshaped for precision restoration

2025 Product Sheet

Typical Applications

107 Metal Repair Paste XL is a high build, solvent free epoxy repair compound formulated with an extended usable life, making it ideal for applications in warmer climates. Designed to restore and reinforce metallic surfaces, it provides a versatile solution for both emergency repairs and planned maintenance, ensuring structural integrity across various industrial settings.

- Worn or damaged pump shafts
- Worn bearing housings
- Worn keyways
- Eroded rudder surfaces
- Cracked pump or valve casings
- Damaged flanges
- Cracked engine blocks
- Corroded bow thruster tunnels
- Scored hydraulic rams
- Leaking tank seams
- Damaged hulls on vessels
- Cold bonding steel plate

Characteristics

Appearance

Base	Dark grey paste
Activator	Light grey paste
Mixed	Mid grey paste

Solids Content

100%

Volume Capacity

388cc/kg

Sag Resistance

Nil at 25mm

Density

Base	2.70
Activator	2.40
Mixed	2.58

Mixing Ratio

By weight	1.67:1
By volume	3:2

Storage Life

5 years if unopened and stored in normal dry conditions; 15-30°C (59-86°F)

Cure times

Usable Life		Min machining time		Max overcoating time		Full Cure	
10°C/50°F	120 mins	10°C/50°F	8 hours	10°C/50°F	24 hours	10°C/50°F	12 days
20°C/68°F	60 mins	20°C/68°F	4 hours	20°C/68°F	12 hours	20°C/68°F	6 days
30°C/86°F	30 mins	30°C/86°F	2 hours	30°C/86°F	6 hours	30°C/86°F	3 days
40°C/104°F	15 mins	40°C/104°F	1 hour	40°C/104°F	3 hours	40°C/104°F	1.5 days

Coverage

4kg (8.8lb) of fully mixed product will give the following coverage rates

1.624m² at 1mm	17.2ft² at 40mil
0.812m² at 2mm	8.8ft² at 80mil
0.540m² at 3mm	5.8ft² 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
Taber CS17 Wheels/1kg load 22mm³ loss/1000 cycles

Compressive Strength
Tested to ASTM D695
1075kg/cm² (15300psi)

Corrosion Resistance
Tested to ASTM B117
Minimum 5000 hours

Flexural Strength
Tested to ASTM D790
703kg/cm² (10,000psi)

Heat Resistance
Suitable for use in immersed conditions at temperatures up to 60°C (140°F)
Resistant to dry heat up to 200°C (392°F) dependent on load

Adhesion
Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 75 micron profile 185kg/cm² (2630 psi)

Pull off Adhesion to ASTM D4541 on abrasive blasted mild steel with 75 micron profile 244 kg/cm² (3480 psi)

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)

Hardness
Tested to ASTM D2240
Shore A: 85

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.

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

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.

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:
4kg (8.8lb)

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. All surfaces must be coated before gingering or oxidation occurs.

Metallic Substrates: Abrasive blast cleaning (Preferred method)

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 75 microns (3mil) 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.

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

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.

C. Mixing

If part mixing the unit of material:

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

PLEASE NOTE: From the commencement of mixing, the material should be used within 60 minutes at 20°C (68°F).

If mixing a complete unit of material:

1. Dispense as much of the base and activator units onto the mixing board provided.
2. Mix the 2 components together until you have a streak free mix (mid grey) on the mixing board.
3. Ensure there is no unmixed material on the spatula or mixing board.

PLEASE NOTE: 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, as this can cause a coarse profile.

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.

Optimum Performance

Where a machined finish is required, the repair area should be overfilled by up to 1.5mm (60mil) and once hardened machined using a surface cutting speed of 200ft/minute and a feed rate of 50 thou/rev initially and 10 thou/rev for finishing.

After an initial curing period of at least 4 hours at 20°C (68°F), raising the cure temperature progressively to 60-100°C (140- 212°F) for up to 8 hours will result in improved mechanical, thermal and chemical resistance properties.

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 area

Step 2

Take equal 3 equal measures of base material, clean the spatula, then take 2 measures of the activator.

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 mid grey in colour.

Step 5

Once the material is fully mixed use an applicator tool to apply the 107 XL 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

Information & Enquiries

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