resimac Ltd.

106 Metal Repair Paste XF

A fast curing, solvent free epoxy ideal for rapid metal repairs. Bonds underwater, requires minimal preparation, and is fully machinable for consistent, reliable results.

- Bonds and cures underwater, ideal for submerged applications
- Rapid curing for quick and efficient repairs
- Fully machinable for seamless integration into existing equipment

2025 Product Sheet

Typical Applications

106 Metal Repair Paste XF is a high performance, two component epoxy designed for emergency and routine repairs on metallic surfaces. Its versatile formulation ensures easy application, even in underwater or damp conditions. With fast curing properties, it enables efficient repairs, while its machinability allows for precise reshaping and finishing, minimising downtime and maintaining operational efficiency.

- Damaged pump shafts
- Cracked pump or valve casings
- Damaged flanges
- Leaking tank seams
- Cracked engine blocks
- Underwater surfaces
- Underwater hulls
- Underwater structures

Characteristics

Appearance

Base	Black viscous paste
Activator	White viscous paste
Mixed	Mid grey viscous paste

Solids Content

100%

Volume Capacity

555cc/kg

Sag Resistance

Nil at 20mm

Density

Base	1.80
Activator	1.80
Mixed	1.80

Mixing Ratio

By weight	1:1
By volume	1:1

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		Full Cure	
10°C/50°F	10 mins	10°C/50°F	90 mins	10°C/50°F	8 hours
20°C/68°F	5 mins	20°C/68°F	45 mins	20°C/68°F	5 hours
30°C/86°F	2.5 mins	30°C/86°F	22 mins	30°C/86°F	2 hours
40°C/104°F	75 secs	40°C/104°F	11 mins	40°C/104°F	1 hour

Coverage

200gm (0.44lb) of fully mixed product will give the following coverage rates:

0.111m² at 1mm	1.2ft² at 40mil

500gm (1.1lb)

0.278m² at 1mm	5.38ft² 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.

Mechanical Properties

Compressive Strength
Tested to ASTM D695
615kg/cm² (8750psi)

Corrosion Resistance
Tested to ASTM B117
Minimum 5000 hours

Flexural Strength
Tested to ASTM D790
655kg/cm² (9315psi)

Hardness
ASTM D2240 Shore D: 82

Heat Resistance
Suitable for use in immersed conditions at temperatures up to 60°C (140°F)

Resistant to dry heat up to 130°C (284°F) dependent on load

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

Pull off Adhesion to ASTM D4541 on abrasive blasted mild steel with 75 micron profile 155kg/cm² (2205psi)

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)

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.

Food Contact
USDA compliant for incidental food contact.

Title 21, Food and Drugs, Chapter I, U.S. Code of Federal Regulations, FDA, Subchapter B – Food for Human Consumption, Section 175.300 (Resinous and Polymeric Coatings).

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.

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:
200gm (0.44lb)
500gm (1.1lb)

Application Guide

A. Surface Preparation

Metallic Substrates: Hand tools

1. All oil and grease must be removed from the surface using an appropriate cleaner such as MEK.
2. All surfaces must be cleaned using wire brush, metal file, coarse sandpaper etc.
3. Once abraded, the surface must be degreased and cleaned using MEK or similar type solvent.

Metallic Substrates: Mechanical tools

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).*
3. Once abraded, the surface must be degreased and cleaned using MEK or similar type solvent.
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).

PLEASE NOTE: From the commencement of mixing, the material should be used within 5 minutes at 20°C (68°F).

C. Mixing

If part mixing the unit of material:

1. Using the spatula provided place 1 equal measure from the base & activator units onto the mixing board provided.
2. Ensure to clean the spatula thoroughly after measuring the base component and before measuring the activator component.
3. Mix the 2 components together until you have a streak free mix (mid grey) on the mixing board.
4. Ensure there is no unmixed material on the spatula or mixing board.

D. Application

Step 1

Using a spatula or applicator tool, apply the material to the prepared surface.

Step 2

Ensure the product is pressed into any holes, scars or cracks.

Step 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 area

Step 2

Take equal measures of base and activator materials, ensure the spatula is clean.

Step 3

Mix the two components using the spatula provided, 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 metal repair paste to the repaired 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

Approvals

Approved by BUREAU VERITAS for Surface Protection and Cold Repair Products applied to Marine Vessels. Certificate No: 55268/B0 BV. Expiry: 1st June 2029.

Information & Enquiries

For more information and technical data please visit our website or contact us.

www.resimacsolutions.com

info@resimac.co.uk

+44 (0) 1845 577498

Resimac Ltd,
Unit B, Park Barn Estate,
Station Road,
Topcliffe,
Thirsk,
North Yorkshire,
Y07 3SE,
United kingdom