resimac

202 Ceramic Repair Fluid

An epoxy fluid reinforced with hardened ceramic fillers, designed to protect metallic surfaces in abrasive fluid flow environments, offering excellent abrasion and erosion resistance.

- Ideal for protecting metallic surfaces in aggressive fluid flow environments
- Brushable for easy application
- Available in a range of colours

2025 Product Sheet

Typical Applications

202 Ceramic Repair Fluid is a two component epoxy fluid reinforced with hardened ceramic particles, designed to provide abrasion and erosion resistance. Ideal for resurfacing worn or damaged metallic surfaces exposed to fluid erosion and corrosion, delivering long lasting protection.

- Worn impellers
- Damaged valves
- Separator housings
- Damaged pump casings
- Eroded pipework
- Propellers
- Bow thrusters
- Rudders
- Corroded water boxes
- End plates and tube sheets

Characteristics

Appearance

Base	Dark Grey, Light Grey, Red, or Blue paste
Activator	Amber liquid
Mixed	Dark Grey, Light Grey, Red, or Blue

Solids Content

100%

Volume Capacity

446cc/kg

Sag Resistance

Nil at 400microns

Density

Base	2.65
Activator	1.00
Mixed	2.24

Mixing Ratio

By weight	8:1
By volume	3:1

Storage Life

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

Cure times

Usable Life		Min overcoating time		Max overcoating time		Full Cure	
10°C/50°F	50 mins	10°C/50°F	4 hours	10°C/50°F	12 hours	10°C/50°F	4 days
20°C/68°F	25 mins	20°C/68°F	2 hours	20°C/68°F	6 hours	20°C/68°F	2 days
30°C/86°F	12.5 mins	30°C/86°F	1 hour	30°C/86°F	3 hours	30°C/86°F	1 day
40°C/104°F	6 mins	40°C/104°F	30 mins	40°C/104°F	90 mins	40°C/104°F	12 hours

Coverage

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

1.68m² at 250 microns	19ft² at 10mil
1.48m² at 300 microns	16ft² at 12mil
1.28m² at 350 microns	14ft² at 14mil

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
20mm³ loss/1000 cycles

Compressive Strength
Tested to ASTM D695
960kg/cm² (13650psi)

Corrosion Resistance
Tested to ASTM B117
Minimum 5000 hours

Flexural Strength
Tested to ASTM D790
635kg/cm² (9000psi)

Hardness
Tested to ASTM D2240 Shore D: 82

Adhesion
Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 75 micron profile 202kg/cm² (2875psi)

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

Heat Distortion
Tested to ASTM D648 at 264psi fibre stress:

20°C (68°F) Cure	48°C (118°F)
100°C (212°F) Cure	95°C (203°F)

Heat Resistance
Suitable for use in immersed conditions at temperatures up to 70°C (158°F)
Resistant to dry heat up to 200°C (392°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.

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).

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:
1kg (2.2lbs)
3kg (6.6lbs)

Application Guide

A. Surface Preparation

Metallic Substrates: Abrasive blast cleaning

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.

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 10°C (50°F).

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.

C. Mixing

Mix the unit in full (1kg/3kg):

1. Pour the contents of the Activator unit into the Base container.
2. Ensure as much material as possible is drained from the Activator container into the base container.
3. Mix the 2 components together using the spatula provided.
4. Ensure the product is streak free and a consistent colour before applying to the repair surface.

D. Application

1. Use a short bristle brush to apply the mixed material, with an approximate bristle length of 2cm.
2. Apply the coating at a wet film thickness range of 250-350 microns (10-14mil).
3. Special attention should be paid to detailed areas such as edges, corners and welds where brush application by stippling may be required.
4. Allow the 1st coat of material to cure for approximately 2 hours at 20°C (68°F).
5. Once the 1st coat has cured hard enough apply a 2nd coat of material at a target thickness of
250-350 microns (10-14mil).

PLEASE NOTE: From the commencement of mixing, the material should be used within 30 minutes at 20°C (68°F).

Quick Application Guide

Step 1

Ensure you have:
1 x base unit
1 x activator unit
1 x spatula
1 x brush with the bristles cut
To 25mm length

Step 2

Open the activator tin and pour contents into the base unit.

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 check the material for any colour difference. The mixed material should be a consistent mix.

Step 5

Once the material is fully mixed use a short-bristled brush to apply the coating to the substrate.

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.

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.

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