

RESIMETAL 203 Superflow Ceramic Repair Fluid

Resimac 203 Superflow Ceramic Repair Fluid is an erosion-corrosion resistant coating used principally in fluid flow situations for improving flow efficiency. The material can be applied directly to abrasive blasted steel or to surfaces previously rebuilt with Resimac 101 Metal Repair Paste or 201 Ceramic Repair Paste.

Typical applications

Suitable for the coating of equipment such as -

pump casings
pipes
jet tubes

pump impellers
propellers
kort nozzles

valves
rudders

Surface Preparation

All oil and grease must be removed from the surface of the repair using an appropriate cleaner such as MEK.

For optimum performance, the surface should be abrasive blasted to **ISO 8501/4 Standard SA2.5 (SSPC SP10/ NACE 2)** and a minimum blast profile of 75 microns using an angular abrasive. Once blast cleaned, the surface must be degreased and cleaned using MEK or similar type material. All surfaces must be repaired before gingering or oxidation occurs.

PLEASE NOTE: For salt contaminated surfaces the area must be abrasive blast cleaned as mentioned above and left for 24 hours to allow any ingrained salts to come to the surface. After this 24 hour period the surface must be washed with MEK prior to brush blasting to remove the surface salts. This process must be repeated until all ingrained contaminants have been sweated out of the surface.

On surfaces already rebuilt with Resimac 101 Metal Repair Paste or 201 Ceramic Repair Paste no further surface preparation is required where over-coating takes place within 3 hours. After this maximum over-coating time has elapsed roughen the surface by flash blasting or other means of abrasion.

Mixing and Application

Warm the Base component to 15-25°C (60-77°F) before mixing and do not apply when the ambient or substrate temperature is below 5°C (40°F) or less than 3°C (37°F) above the dew point

Mixing of the product can be on full units or by part-mixing.

If mixing the whole unit, pour the contents of the Activator unit into the Base container ensuring that as much material is drained from the Activator container as possible. Mix the two components together until they are streak-free using a spatula and apply using a short bristled brush or applicator tool.

The product should be applied at a target wet film thickness of 250-350 (10-14mil) microns per coat. The product must be applied to any metallic surface in two coats to give a minimum dry film thickness of 500 microns (20mil). From the commencement of mixing the material should be used within 20-30 minutes at 20°C (68°F).

As soon as possible after application of the first layer, and after no longer than 6 hours, apply a further coat as above. If the maximum over-coating time is exceeded, the first layer should be brush blasted or abraded before applying the second coat.

For part mixing use a mixing ratio of 5:1 by weight or 3:1 by volume.

Cure Times

At 20°C 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	30 - 40 minutes
Movement without load or immersion	6 hours
Light loading	10 hours
Full loading and cold water immersion	3 days
Hot water and Chemical immersion	6 days

Coverage Rates

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

2.716m ² at 250 microns	29ft ² at 10mil
2.226m ² at 300 microns	124ft ² at 12mil
1.935m ² at 350 microns	20.50ft ² 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.

For Optimum Performance

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

Pack Sizes

This product is available in the following pack sizes –
1kg (2.2lb), 3kg (6.6lb), 30kg (66lb)

Colour

Mixed material - Dark Grey, Light Grey, Red, Light Blue
Base component – Dark grey, Light Grey, Red, Light Blue
Activator component – Amber Liquid

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 6 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/ 60-86F°)

Technical Data and Performance

Volume Capacity	679cc/Kg
Compressive Strength ASTM D695	735kg/cm ² (10,450psi)
Tensile Shear Adhesion(mild steel) ASTM D1002	187kg/cm ² (2650psi)
Flexural Strength ASTM D790	570kg/cm ² (8100psi)
Hardness (Rockwell R) ASTM D785	85
Corrosion Resistance (ASTM B117)	10,000 hours

Please see Resimetal 203 Super Flow Fluid Product Specification Sheet for further technical and performance data.

Storage Life

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

Health and 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 the detailed Material 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 the products suitability for use. Resimac accepts no liability arising out of the use of this information or the product described herein.