102 METAL REPAIR FLUID

102 Metal Repair Fluid is a two component solvent free epoxy metal repair Fluid. The product has been designed for use on a wide range of metallic surfaces and once cured is readily machinable.

Typical applications

The product is suitable for filling mechanically or abrasive blast cleaned surfaces where excessive pitting and scarring has been caused by corrosion or chemical attack. The material can also be used with aluminium oxide aggregates to create anti-slip finishes on metallic surfaces such belt rollers, brake test rollers and steps.

Characteristics

Appearance

Base: Dark grey paste
Activator: Amber liquid
Mixed: Mid grey fluid

Mixing Ratio

By weight: 8:1
By volume: 3:1

Density

Base: 2.70
Activator: 1.00
Mixed: 2.50

Volume Capacity

440cc/Kg

Solids content

100%

Sag Resistance

Nil at 3mm

Coverage

1kg (2.2lb) of fully mixed product will give the following coverage rates –
0.440m² at 1mm
4.73ft² at 40mil
0.220m² at 2mm
2.37ft² at 80mil
0.146m² at 3mm
1.57ft² 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.

Cure Times

The applied material should be allowed to harden for the times indicated below before being subjected to the conditions indicated:

Usable life

10°C	60 minutes
20°C	30 minutes
30°C	15 minutes
40˚C	7.5 minutes

Minimum machining time

10°C	4 hours
20°C	2 hours
30°C	1 hour
40˚C	30 mins

Maximum overcoating time

10°C	12 hours
20°C	6 hours
30°C	3 hours
40˚C	90 mins

Full Cure

10°C	6 days
20°C	3 days
30°C	1.5 days
40˚C	18 hours

Storage life

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

Mechanical Properties

Abrasion Resistance

Taber CS17 Wheels/1 Kg load
22mm³ loss/1000 cycles

Adhesion

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

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

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)

Hardness

Rockwell R to ASTM D785
100

Heat Distortion

Tested to ASTM D648 at 264psi fibre stress.
20°C Cure 58°C
100°C Cure 98°C

Heat Resistance

Suitable for use in immersed conditions at temperatures up to 60°C.
Resistant to dry heat up to 200°C dependent on load.

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Product Specification

Food Contact
USDA compliant for incidental food contact.

Chemical Resistance
The product resists attack by a wide variety of inorganic acids, alkalies, 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.

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 the Technical Data Sheet for the material.

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

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