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Zincodic MR-101 Metal Repair Paste –solvent free epoxy with metallic fillers

Zincodic MR-101 Metal Repair Paste is a two-component solvent free epoxy metal repair compound designed to fill surface erosion & corrosion on metallic surfaces.

- Apply to mechanically & abrasive blast cleaned surfaces
- High mechanical adhesion to metal substrates
- Apply at thicknesses up to 25mm

Typical Applications

worn or damaged pump shafts	cracked pump or valve casings	scored hydraulic rams
worn bearing housings	damaged flanges	leaking tank seams
worn keyways	cracked engine blocks	damaged hulls on vessels
eroded rudder surfaces	corroded bow thruster	cold bonding steel plate

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

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 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.

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.

Mixing

Prior to mixing please ensure the following:

1. The base component is at a temperature between 15-25°C
2. The ambient & surface temperature is above 5°C

Once these two checks have been confirmed, then proceed with mixing the product.

If part mixing the unit of material, please follow the instructions below:

1. Using the spatula place 3 equal measures from the base unit onto the mixing board.
2. Clean the spatula thoroughly.
3. Then take 1 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.

Ensure there is no unmixed material on the spatula or mixing board.

If mixing a complete unit of material (500gm/1kg/3kg) please follow the instructions below:

1. Dispense as much of the base and activator units onto a clean mixing surface.
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.

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

Application

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

1. Ensure the product is pressed into any holes, scars, or cracks.
2. Once the repair has been completed smooth off any imperfections using a gloved hand.

Where a machined finish is required, the repair area should be overfilled by up to 1.5mm 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

Coverage Rates

1kg of fully mixed product will give the following coverage rates –
0.406m²at 1mm4.
0.203m²at 2mm
0.135m²at 3mm
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

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 30mins
- Machining and light loading 2 hours
- Maximum overcoating time 6 hours
- Full cure 3 days

For Optimum Performance

After an initial curing period of at least 4 hours at 20°C raising the cure temperature progressively to 60 -100°C 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 –500gm, 1kg, 3kg, and 30kg

Colour

Mixed material -Dark Grey
Base component –Dark grey
Activator component –Light grey

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)

Health and Safety

Ensure good practice is observed at all times. Protective gloves, goggles & a disposable coverall must be worn during the mixing and application of this product. Before mixing and applying the material ensure you have read the fully detailed 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 if the product is suitable for use. Zincodic accepts no liability arising out of the use of this information or the product described herein