REPCO SOLUTIONS

TECHNICAL DATA SHEET:
REPFLO 2201 Ceramic Paste

PRODUCT DESCRIPTION

REPFLO 2201 Ceramic Paste is a two-component solvent free epoxy metal repair compound. The product has been designed for use on a wide range of metallic surfaces subject to corrosion, abrasion and impact.

TYPICAL APPLICATIONS

Suitable for emergency repairs or part of planned maintenance to equipment such as –

- structural adhesive
- worn or damaged pump shafts
- corroded pump or valve casings
- corroded tube sheets and water boxes
- process equipment
- leaking tank seams
- pulsation dampeners
- hydro cyclones

SURFACE PREPARATION

GENERAL

Correct surface preparation is essential for the success of any application. All oil and grease must be removed from the surface of the repair using an appropriate cleaner such as MEK.

STEEL SUBSTRATE

For optimum performance, all steel substrates 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. Remove all residual blast debris and the surfaces inspected. Profile checks should be taken and recorded. Once blast cleaned, the surface must be degreased and cleaned using MEK or similar type material. All surfaces must be repaired before rusting 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.

Where abrasive blast cleaning is not possible (excluding salt contaminated surfaces) the surface should be roughened by MBX, needle gun or grinding.

In areas where the product should not adhere a thin layer of a suitable release agent should be applied taking care not to contaminate other areas.

MIXING AND APPLICATION

PRECAUTIONS

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

MIXING

Mixing of the product can be on full units or by part-mixing. If mixing the whole unit please ensure as much of the base and activator is dispensed from the plastic container onto a clean plastic mixing surface and mix using a spatula until a uniform material free of any streakiness is achieved while ensuring no unmixed material is left on the spatula or the mixing surface. From the commencement of mixing the entire material should be used within 25-30 minutes at 20°C (68F°).

For part mixing, using 3 equal measures from the base unit onto a clean plastic mixing surface. Clean the spatula thoroughly and then take one equal measure from the activator unit and place alongside the base measures. Mix as above.

Using a spatula or applicator tool, apply the material to the prepared surface, ensuring the product is pressed into any pitting corrosion, holes or cracks and profile the repair to a smooth finish.

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

0.406m² at 1mm	4.3ft² at 40mil
0.203m² at 2mm	2.2ft² at 80mil
0.135m² at 3mm	1.45ft² 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.

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CURE TIMES

At 20°C (68F°) 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:

Temperature	Movement without load or immersion	Machining and light loading	Full mechanical Loading	Full Immersion
10°C/50F°	3 Hours	4 Hours	2 Days	4 Days
20°C/68F°	1½ Hours	2 Hours	1 Day	2 Days
30°C/86F°	45 Mins	1 Hours	16 Hours	1 Days
40°C/104F°	20 Mins	30 Mins	10 Hours	16 Hours

POST CURING FOR OPTIMAL PERFOMANCE

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

UNIT SIZES

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

OVERCOATING TIMES

Minimum – further material can be applied as soon as the first layer is touch dry.
Maximum – regardless of temperature the over-coating time should not exceed 3 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, and to expose a frosted appearance.

TECHNICAL SUPPORT

Zoom Corrosion Technology offer complete technical support and assistance, from discussing application requirements to training approved local contractors. For further information please contact a REPCO representative or your nearest REPCO authorised dealer.

STORAGE LIFE

The shelf life of the product is typically 5 years if unopened and stored in cool dry conditions (15-30°C/ 60-86F°). Once opened replace the lid firmly and store as above.

TECHNICAL DATA

Volume Capacity	406cc/Kg
Compressive Strength ASTM D695	1089kg/ cm^2 (15,500psi)
Tensile Shear Adhesion ASTM D1002	188kg/cm^2 (2675psi)
Flexural Strength ASTM D790	703kg/cm^2 10,000psi
Hardness Rockwell R ASTM D785	100
Corrosion Resistance (ASTM B117)	5000 hours

ADDITIONAL TECHNICAL DATA

Please see the REPFLO 2201 Ceramic Paste Product Specification Sheet for further technical and performance data.

HEALTH AND SAFETY

Please refer to the product safety data sheet for detailed information on handling, storage, shipping and disposal.

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. Zoom Corrosion Technology accepts no liability arising out of the use of this information or the product described herein.

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