PRODUCT SPECIFICATION SHEET:

REPCO 1101 Engineering Grade Paste

PRODUCT DESCRIPTION

Repco 1101 Engineering Grade 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 and once cured is extremely durable and readily Machinable. It can be used for injection or creating irregular shims, bonding and as a structural adhesive.

TYPICAL APPLICATIONS

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

structural adhesive
composite wrapping
worn/damaged pump shafts
cracked pump or valve casings
worn bearing housings reforming flanges faces
leaking tank seams
worn keyways
cracked engine blocks

GENERAL PRODUCT INFORMATION

Appearance

Base:	Dark Grey Paste
Activator:	Light grey paste
Mixed:	Mid grey paste

Mixing Ratio

By weight:	5:1
By volume:	3:1

Density

Base:	2.70
Activator:	1.70
Mixed:	2.46

Volume Capacity
406cc/Kg

Solids content
100%

Slump Resistance
Nil at 2.0 cm

Working life
Working life will vary with temperature. Increases in temperature will reduce the working life of the product. As a guide, the usable life of the material is:

10°C	50-60 minutes
20°C	25-30 minutes
30°C	15-20 minutes

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. Times will be extended at lower temperatures and reduced at higher temperatures. As a general rule these times will be doubled at 10°C and halved at 30°C.

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°	1 1/2 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

Coverage Rate
For calculating product usage in filling voids the volume capacity of the product is 406cc/Kg

For other applications 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.

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.

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MECHANICAL PROPERTIES

Testing is typically done under laboratory conditions at a temperature of 20°C unless otherwise specified.

Adhesion
Tensile Shear when tested in accordance with ASTM D1002 on abrasive blasted mild steel with a 75 micron profile will typically be:

185kg/cm²	2,630 psi	18.1 MPa

Pull Off dolly adhesion tested in accordance with ASTM D 4541/ISO 4624 on abrasive blasted mild steel with a 75 micron profile will typically be:

222kg/cm²	3,160 psi	21.7 MPa

Compressive strength
When tested in accordance with ASTM D 695, typical values will be:

1075kg/ cm²	15,300psi	105.5 MPa

Corrosion Resistance
When tested in accordance with ASTM B117 the material shows no sign of corrosion after:

Minimum 5000 hours Exposure

Flexural Strength
When tested in accordance with ASTM D790 typical values will be:

703kg/cm²	10,000psi	68.9 MPa

Hardness
Rockwell R
Tested to ASTM D785 typical value will be: 100

Shore D
Tested to ASTM D2240 typical value will be: 86

Food Contact
USDA compliant for incidental food contact.

Approvals

Approved by BUREAU VERITAS for Surface Protection and Cold Repair Products applied to Marine Vessels.

CHEMICAL RESISTANCE

Once fully cured the product resists attack by a wide variety of inorganic acids, alkalies, salts (salt water) and organic media. The product is also resistant to mineral oils, lubricating oil and a wide range of hydrocarbons. For further information please refer to the chemical resistant chart or a technical representative.

HEAT RESISTANCE

Heat Distortion Temperature (HDT)
Tested to ASTM D648 (264 psi fibre stress), typical values are:

Cure Temperature	HDT
20°C Cure	58°C
100°C Cure	98°C

Heat Resistance

Suitable for long term water immersion at temperatures up to 70°C and intermittent contact with pressurised steam up to 120°.

Resistant to dry heat in excess of 200°C dependent on load.

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.

HEALTH AND SAFETY

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

Repco products are manufactured for:
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ZOOM CORROSION TECHNOLOGY