

### PRODUCT DESCRIPTION

**REPCO 1104 ST Fluid** is a fast curing two component solvent free epoxy metal repair fluid. The product has been designed for use on a wide range of metallic surfaces where surface preparation is restricted and where the surface is contaminated with oil or grease.

### TYPICAL APPLICATIONS

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

- Transformer Leaks
- Pipe wrapping
- Cracked pump or valve casings
- Worn bearing housings
- Reforming flanges faces
- Leaking tank seams
- Cracked engine blocks

### SURFACE PREPARATION

#### GENERAL

Ideal surface preparation for this material is abrasive blast cleaning to ISO 8501/4 Standard SA2.5 (SSPC SP10/ NACE 2) and with a minimum blast profile of 75 microns using an angular abrasive. However, this product has been designed to be applied on contaminated surfaces and for surfaces with less than ideal surface preparation.

#### STEEL SUBSTRATE

**MBX bristle blaster**, for the best mechanical surface preparation results use an MBX bristle blaster. Ensure all loose material and as much surface contamination is cleaned from the surface. Ensure the surface is wiped with an appropriate solvent cleaner such as MEK prior to and after abrading the surface.

**Mechanical tools**, use a handheld mechanical grinder with a coarse grinding pad or rotary wire brush. Ensure all loose material and as much surface contamination is cleaned from the surface. Do not polish the surface, ensure that the surface has a cross hatch pattern. Ensure the surface is wiped with an appropriate solvent cleaner such as MEK prior to and after abrading the surface.

**Hand tools**, use a wire brush or coarse sand paper to abrade the surface. Ensure all loose material and as much surface contamination is cleaned from the surface. Ensure the surface is wiped with an

appropriate solvent cleaner such as MEK prior to and after abrading the surface.

**Leaking transformer surfaces** – to repair a weeping/ leaking transformer surface mixed 1104 ST Fluid must be applied within 10-15 seconds of the surface being cleaned. Do not abrade the surface with any mechanical tools. If possible use a wire brush to take off any loose corrosion or coating, then wipe the surface with a solvent wipe and take away as much excess oil as possible.

### MIXING AND APPLICATION

#### PRECAUTIONS

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

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 5 minutes at 20°C (68°F).

For part mixing, using a spatula one equal measure from the base unit and activator unit onto the plastic mixing surface. Mix as above.

**Damaged components and equipment repairs** - Using a brush or applicator tool, apply the material to the prepared surface, ensuring the product is pressed into any scars or cracks and profile the repair to a smooth finish. If required the product can be used in conjunction with reinforcement tape and used to wrap round leaking pipe work.

**Leaking transformer surfaces** – Use the applicator tool provided to scrape the mixed material off the mixing board, apply 104 Metal Repair Fluid XF onto the surface, press the material onto the weeping/ leaking surface. Apply the material to a target thickness of 2-3mm (up to 1/8"). Do not overwork the material on the repair surface. Once in place on the repair surface allow to cure for 20-30mins.

# TECHNICAL DATA SHEET:

## REPCO 1104 ST Fluid

### Coverage Rates

800gm (1.6lb) of fully mixed product will give the following coverage rates –

0.444m <sup>2</sup> at 1mm	5.9ft <sup>2</sup> at 40mil
0.222m <sup>2</sup> at 2mm	3.0ft <sup>2</sup> at 80mil
0.148m <sup>2</sup> at 3mm	2.0ft <sup>2</sup> 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

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	1 Days	1 Day
20°C/68F°	45 Mins	2 Hours	8 Hours	8 Hours
30°C/86F°	25 Mins	1 Hour	4 Hours	6 Hours
40°C/104F°	25 Mins	1 Hour	2 Hours	4 Hours

### UNIT SIZES

Product is available in the following pack sizes – 250gm (0.5lb), 800gm (1.6lb), 50kg (110lb)

### 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 4 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.

### 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	555cc/Kg
Compressive Strength ASTM D695	14-18 N/mm <sup>2</sup>
Tensile Shear Adhesion ASTM D1002	185kg/cm <sup>2</sup> (2630psi)
Lap Shear Strength ISO 4587	Steel 25 N/mm <sup>2</sup> Aluminium 15 N/mm <sup>2</sup>
Hardness Rockwell R ASTM D785	78-80
Peel Strength ISO 4578	3-5

### ADDITIONAL TECHNICAL DATA

Please see the REPCO 1104 ST Fluid 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.

### 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.

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