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WEAR RESISTANT EPOXY LIQUID (WR)

PRODUCT DATA SHEET

A ceramic-filled epoxy liquid where exceptional durability and ruggedness are required.

- For casting metal forming dies and tracing masters.
- Combines low-friction performance with outstanding wear resistance.
- No shrink curing assures reproduction of critical details.

RECOMMENDED APPLICATIONS:

- Ideal for making moulds which will be used with abrasive materials.
- To protect and rebuild interfacing metal wear surfaces.
- Protects metal from bi-metallic corrosion.
- Excellent for repairing tracing guides.

PRODUCT DATA

Typical Properties

Colour.....	Dark grey
Mixed consistency.....	15/25,000
Pot life @ 21° C.....	50 minutes
Adhesive tensile shear ASTM D1002.....	17.8N/mm ²
Compressive strength ASTM D695.....	67.9N/mm ²
Operating temperature.....	121° C
Cured hardness Shore D ASTM D2240.....	88D
Specific volume.....	570cm ³ /kg
Coverage cm ² /kg @ 6.35mm.....	950
Dielectric strength, volt/mil ASTM D149.....	400
Mix ratio..... wt	9.0 : 1
.....vol	4.0 : 1
Flexural strength.....	45 N/mm ²
Cure shrinkage cm/cm.....	0.0005

CHEMICAL RESISTANCE: 7 days room temperature cure (30 days immersion @ 24° C)

Kerosene	Very Good	Methanol	Fair
Hydrochloric Acid 10%	Fair	Toluene	Very Good
chlorinated Solvent	Very Good	Ammonia	Very Good
Sulphuric Acid 10%	Fair	Sodium Hydroxide 10%	Very Good

Epoxyes are very good in water, saturated salt solution, leaded gasoline, mineral spirits, ASTM #3 oil and propylene glycol. Epoxyes are generally not recommended for long term exposure to concentrated acids and organic solvents.



Certificate No. FM 11623

Registered England No. 559693 Registered Office PO Box 87, Queensway, Fforestfach, Swansea SA5 4YE



APPLICATION INFORMATION**Surface applications**

Proper surface preparation is essential to a successful application. The following procedures should be considered :

- First, degrease the surface by using any one of Devcon's Industrial Cleaners. Oil, grease and dirt must be removed before applying any epoxy material.
- All surfaces must be thoroughly roughened ideally by grit blasting (8-40 mesh grit), or by grinding with coarse wheel or abrasive disc pad. An abrasive disc may be used provided white metal is revealed. This creates increased surface area for better adhesion. A 3-5 mil profile is desired for an application. Do not 'feather edge' epoxy materials. Epoxy material must be 'locked in' by defined edges and a good 3 - 5 mil profile.
- Metal that has been handling sea water or other salt solutions should be grit blasted and high pressure water blasted and left overnight to allow any salts in the metal to 'sweat' to the surface. Repeat blasting to 'sweat out' all the soluble salts. A test for chloride contamination should be performed prior to any epoxy application. The maximum soluble salts left on the substrate should be no more than 40 p.p.m. (parts per million).
- All abrasive preparation should be followed by chemical cleaning with any of Devcon's Industrial Cleaners. This will help to remove all traces of sandblasting, grit, oil, grease, dust or other foreign substances.
- Under cold working conditions, heating the repair area to 38^oC - 43^o C immediately before applying any of Devcon's Metal-filled Epoxies is recommended. This procedure dries off any moisture, contamination or solvents and assists the epoxy in achieving maximum adhesion to the substrate.
- All prepared surfaces should be repaired as soon as possible, to eliminate any changes or surface contaminants.

MIXING: Mix ratio : weight 9.00:1, volume 4.00:1

Add hardener to resin. Mix thoroughly with a spatula or similar tool until a uniform, streak-free consistency is obtained, about 4 minutes. Be sure to mix material from bottom and sides of container.

APPLICATION:

Brush thin coat on prepared surface, then pour material in a fine stream to avoid bubbles. Pour wear Resistant from one end evacuating air and letting the material fill all voids.

CURE:

A 12.7mm thick section of Devcon Epoxy will harden at 24^o C in 4 hours. The material will be fully cured in 16 hours.

PRECAUTION:

For complete safety and handling information, please refer to the appropriate Material Safety Data Sheet prior to using this product.

For technical assistance please call 01933 675299

Warranty:

Devcon will replace any material found to be defective. Because the storage, handling and application of this material is beyond our control, we can accept no liability for the results obtained.

ORDERING INFORMATION:

<u>Stock No</u>	<u>Unit size</u>
11211	500g