

PLASTIC STEEL® LIQUID B

PRODUCT DATA SHEET

A steel-filled liquid epoxy with the performance of Plastic Steel Putty.

- Two-component system applies quickly and easily.
- Can be cast over models for accurate detail reproduction
- Can be machined to close tolerances
- Hardens in about an hour, functional in 16 hours
- Use conventional metalworking tools to machine, drill, tap or grind.

RECOMMENDED APPLICATIONS:

- Creating holding fixtures for intricate parts
- Filling and levelling equipment
- Repairing hard to reach areas where a flowable epoxy is needed
- Creating duplicating or tracing masters

PRODUCT DATA:

Typical Properties

Colour.....	Dark Grey
Mixed consistenc	Liquid
Pot life at 21 ^o	45 minutes
Compressive strength ASTM D695.....	70 N/mm ²
Operating temperature.....	1210 C
Cured hardness shore D ASTM D2240.....	85D
Specific Volume.....	473.00
Coverage cm ² /kg @ 6.35mm.....	728.00
Dielectric strength Volk/mil ASTM D149.....	30.00
Mix ratio.....	wt. 9.0:1
	vol 3.0:1
Flexural Strength.....	52N/mm2

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

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

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



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 a 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 chlorine 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°C - 43°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 9:1, volume 3:1

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. 10kg containers are packaged with a slow hardener. Pot life is 75 minutes.

APPLICATION:

Use release agent. Then brush coat a fine coat over entire mould, then pour rest in a fine stream to reduce air bubbles. Preheating the mould to 43°C so that 'B' will flow better and reduce air entrapment.

CURE:

A 12.7mm thick section of Devcon Epoxy will harden at 24°C in 4 hours. The material will be fully cured in 16 hours. The actual cure time of epoxy is determined by the size of the mass of epoxy and the temperature

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>
10211	500g
10215	1kg
10217	10kg*

* Packaged with slow hardener. Pot life is 75mins