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PLASTIC STEEL® PUTTY (A)

PRODUCT DATA SHEET

PRODUCT DESCRIPTION :

The original metal filled epoxy putty for general maintenance and repairs. For filling, re-building, and bonding metal surfaces.

FEATURES & BENEFITS :

- Applies easily, needs no special tools, heat or pressure.
- Bonds to most metals, concrete and some plastic materials
- Cures in 16 hours at room temperature
- When cured it can be drilled, tapped, machined or painted
- Excellent resistance to oil, gasoline, water and many chemicals
- Qualified under Mil Spec DOD - C 0 24176B (SH) Type I & II

RECOMMENDED APPLICATIONS

- Repairs cracks and breaks in equipment, machinery, or castings
- Patches and rebuilds blow holes or pits in castings.
- Rebuilds worn equipment
- Rebuilds pump and valve bodies
- Restores bearing, journals and races

PRODUCT DATA :

Typical Properties

Colour.....	Grey
Pot life at 21° C.....	45 minutes
Mixed consistency.....	Putty
Adhesive tensile shear ASTM D 1002.....	19 N/mm ²
Compressive Strength ASTM D 695.....	57N/mm ²
Operating temperature, maximum	121° C
Cured hardness, Shore D ASTM D 2240.....	850
Specific Volume	429 cm ³ / kg
Coverage, cm ³ /kg @ 5mm thickness	858
Flexural strength ASTM D 790	39 N/mm ²
Mix ratio.....	Weight 9.0:1
Cure shrinkage cm/cm ASTM D 2566.....	'0.0006

CHEMICAL RESISTANCE : 7 Days room temperature are (30 days immersion @ 21° C)

Kerosene	VERY GOOD	Methanol	FAIR
Hydrochloric acid 10%	VERY GOOD	Toluene	FAIR
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 petrol, mineral spirits, ASTM#3, oil and propylene glycol, Epoxies 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 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 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°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, by Volume 2.5:1

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

APPLICATION :

For best results, product should be kept and applied at room temperature. Plastic Steel Putty can be applied when temperatures are between 13° C and 32° C. When temperatures are below 21° C, cure and pot life will be longer, and above room temperature, cure and pot life will be shorter. Spread Plastic Steel Putty over prepared surface with an applicator (enclosed), or putty knife. Press firmly to ensure maximum surface contact and avoid entrapping air. To bridge large gaps or holes use fibreglass, expanded metal or other mechanical fasteners.

CURE:

A 12.7mm thick section of Devcon Plastic Steel Putty (A) will harden at 24° C in 4 hours. The material will be fully cured in 16 hours at which time the material can be machined, drilled or painted. The actual cure time of epoxy is determined by the size of the mass of epoxy and the room temperature

PRECAUTION

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

For technical assistance please call 01933 675299

ORDERING INFORMATION

<u>Stock No</u>	<u>Unit size</u>
10112	500g
10115	1kg
10117	10kg

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.