



PLASTIC STEEL® 5-MINUTE PUTTY (SF)

PRODUCT DATA SHEET

A steel-filled, fast setting epoxy putty for general maintenance and repairs. For filling, rebuilding, and bonding metal surfaces.

- Mixes, applies and cures in temperatures as low as 4° C
- Use it to repair steel, iron, aluminium, brass and concrete
- Use conventional metalworking tools to machine finished repairs
- Excellent resistance to oil, gasoline, water and many chemicals
- Sets up in 5 minutes, full cure in 1 hour

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	Dark Grey
Mixed Consistency.....	Putty
Pot Life @ 21°C.....	5 minutes
Adhesive tensile shear.....	14N/mm ²
Compressive strength.....	72N/mm ²
Operating temperature.....	93°C
Cured hardness shore D.....	86
Specific Volume.....	509cm ³ /kg
Coverage cm ² /kg @ 6.35mm.....	840
Dielectric strength Volt/mil.....	35
Mix ratio.....	wt 1.7:1
.....	Vol 1.0 : 1
Flexural strength.....	53N/mm ²
Cure shrinkage cm/cm.....	0.009

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

Kerosene	Very Good	Methanol	Unsatisfactory
Hydrochloric Acid 10%	Very Good	Toluene	Very Good
Chlorinated solvent	Unsatisfactory	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 recommended for long-term exposure to concentrated acids and organic solvents



Certificate No. EM 11623

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



BRITISH ADHESIVES & SEALANTS ASSOCIATION

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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 1.7: 1, Volume 1:1

Add hardener to resin. Mix thoroughly with a screwdriver or similar tool until a uniform consistency is obtained. Be sure to mix material from the bottom and sides of the container. Remember you only have a 5 minute pot life so mix for 1 minute.

APPLICATION

For best results, product should be kept and applied at room temperature. Plastic Steel Putty SF can be applied when temperatures are between 13°C and 32°C . When temperatures are below 21°C cure and potlife will be longer, and above room temperature, cure and potlife will be shorter. Spread Plastic Steel Putty over prepared surface with 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. This product is not recommended for immersion in water.

CURE

A 12.7mm thick section of Devcon Plastic Steel ® Putty (SF) will harden at 24°C in 1 hour. 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 temperature.

PRECAUTION

For complete safety and handling information, please refer to the appropriate Material Safety Data Sheets 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>
10241	500g