PLASTIC STEEL 5 MINUTE PUTTY (SF) PRODUCT BULLETIN

Product Description

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

Features and benefits

- Setup in 5 minutes, functional cure in 1 hour
- Applies easily. No special tools required
- Bonds to steel and many other metals, as well as concrete
- Machinable (see back page)
- Makes repairs that are non-rusting

Recommended Applications

- Repair of worn or fatigued metals
- Patching of castings
- Making jigs and fixtures
- Rebuilding pump and valve bodies
- Restoring bearing journals and races

Typical Physical Properties: Cured 7 days @ 24ºC

Colour	Dark Grey
Mixing Ratio (resin to hardener)	Weight 1.7:1 Volume 1:1
Mixed Viscosity	Putty
Work Time at 24°C	5 minutes
% Solids by Volume	100
Cured Density	1.84 gm/cc
Cure Shrinkage ASTM D2566	0.009 cm/cm
Compressive Strength (at elastic limit) ASTM D695	44 MPa
Adhesive Tensile Shear ASTM D1002	16 MPa
Cured Hardness Shore D ASTM D2240	85D
Dielectric Strength, volts/mm ASTM D149	1181
Temperature Resistance:	Dry 93°C
Coverage	1084cm2/kg @ 5mm

Chemical Resistance: 7 days room temperature cure (30 days immersion)

Kerosene	VG	Methanol	U
10% Hydrochloric Acid	VG	Toluene	F
Avgas	VG	Lubricating Oil	VG
Diesel Oil	VG	10% Sodium Hydroxide	F

KEY: VG = Very Good F = Fair U = Unsatisfactory

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.

PLEASE CONSULT TECHNICAL SERVICE FOR OTHER CHEMICALS

Directions for Use:

Proper surface preparation is essential to the success of any epoxy application. In all cases the surface should be clean, dry, free from oils, and rough.

1. Remove all oils, dirt and grease by means of a strong cleaner/degreaser (Devcon Cleaner is suitable for this process).
2. Roughen the surface by grit blasting (8-40 mesh grit) or grinding. A 75-125 micron profile is desired for most applications.
3. All abrasive preparation should be followed by another cleaning to remove any remnants from that process.
4. Ideal application temperature is 13ºC-32ºC. Under cold conditions, heating the repair area to 38ºC - 43ºC is recommended.

Mix Ratio – Resin to hardener: Weight 1.7:1, Volume 1:1

5. Add hardener to resin and mix thoroughly with a putty knife until a uniform, streak-free consistency is obtained (about 2 minutes).
6. Spread mixed material over the repair area and work firmly into the substrate to ensure maximum surface contact.
7. To bridge large gaps or holes, use fibreglass tape, expanded metal or mechanical fasteners.

Cure:

- Working time is 5 minutes @ 24ºC
- Functional (75%) cure is achieved in 1 hour @ 24ºC

Machining

- Allow material to cure for at least 1 hour before machining
- Lathe speed 48 m/minute
- Cut: dry
- Tools: Carbide top rake 6º (+/- 2º) – Side/front 8º (+/- 2º)
- Feed rate (rough): Travel speed 0.50 mm Rough cut 0.50 mm – 1.5 mm/rev
- Feed rate (finishing): Travel speed 0.25 mm Finish cut 0.25 mm/rev
- Polishing: use 400 to 650 emery paper wet. Material should polish to a 25-50 micron finish

Precaution

Use in accordance with Material Safety Data Sheet.

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.

Warning: For industrial use only.

ORDERING INFORMATION

Stock No.	Unit Size
10240	0.5 kg
10250	0.25 kg

MANUFACTURED BY
ITW Polymers & Fluids
100 Hassall Street
Wetherill Park NSW 2164

QUEENSLAND DISTRIBUTOR
INTERNATIONAL TRADERS Pty Ltd
6/286 Evans Rd
Salisbury - BRISBANE - QLD 410
Phone (07) 3272 9051 Fax (07) 3272 9744