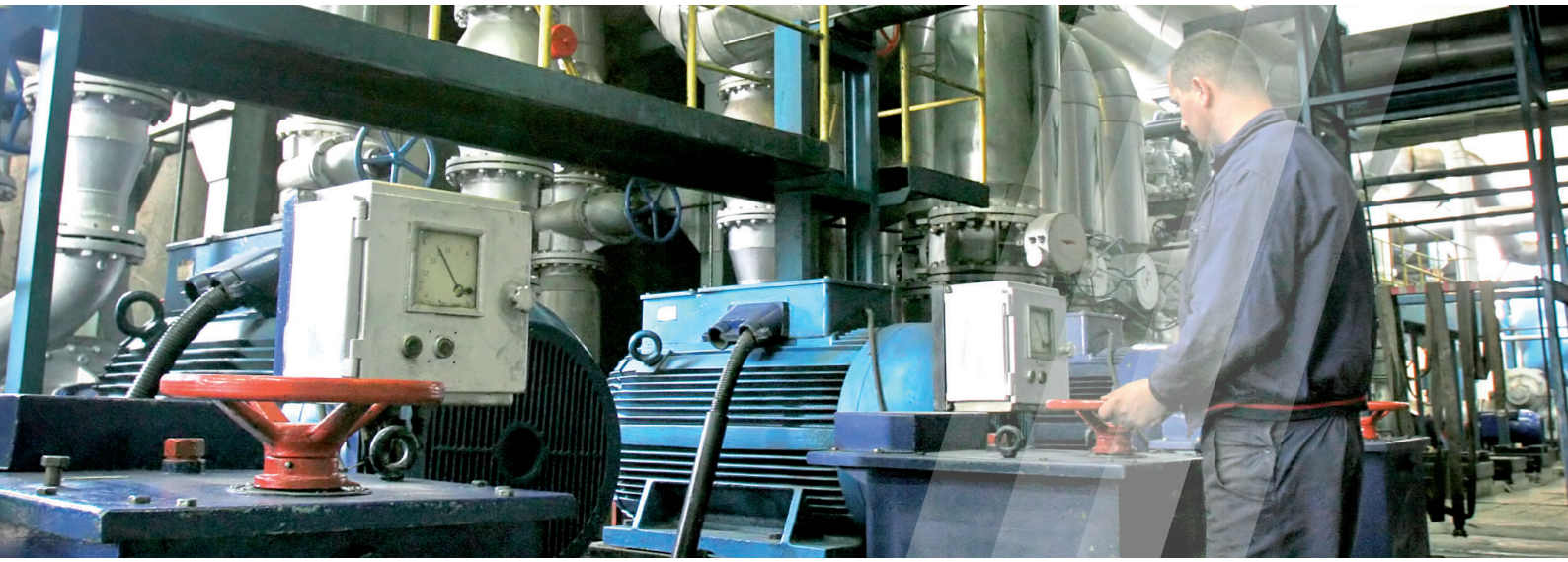

TECHNICAL DATASHEET – PLASTIC STEEL 5 MINUTE PUTTY (SF)
A FAST CURING, STEEL-FILLED EPOXY PUTTY

Revised: 05/2018

ORDERING INFORMATION
STOCK NO.: 10241
PACKAGE SIZE: 500g

DESCRIPTION
A fast curing, steel-filled epoxy putty for dependable emergency repairs and quick maintenance work.

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

PRODUCT DATA

TYPICAL PHYSICAL PROPERTIES

COLOUR	Dark Grey
MIX RATIO BY VOLUME	1:1
MIX RATIO BY WEIGHT	1.7:1
% SOLIDS BY VOLUME	100
POT LIFE AT 25°C/ MINS	5
SPECIFIC VOLUME CC/KG	455
CURED SHRINKAGE CM/CM	0.009
SPECIFIC GRAVITY	2.2
TEMPERATURE RESISTANCE	Dry 93°C
COVERAGE	909cm²/Kg @ 5mm
CURED HARDNESS / SHORE D	86 D
DIELECTRIC STRENGTH KV/MM	1.18
ADHESIVE TENSILE SHEAR / MPA	14
COMPRESSIVE STRENGTH MPA	72
COEFFICIENT OF THERMAL EXPANSION X10^{-6} CM/CM/°C	61
THICKNESS PER COAT / MM	As Required
FUNCTIONAL CURE TIME /HOURS	1
RECOAT TIME / MINUTES	15-30
MIXED VISCOSITY /CPS (WHERE APPLICABLE)	Putty

TECHNICAL DATA SHEET – PLASTIC STEEL 5 MINUTE PUTTY (SF)

CHEMICAL RESISTANCE - 7 DAYS ROOM TEMPERATURE CURE (30 DAYS) - TESTING CARRIED OUT 30 DAYS IMMERSION AT 21°C

	POOR	FAIR	VERY GOOD	EXCELLENT
AMMONIA		•		
CUTTING OIL			•	
ISOPROPYL ALCOHOL	•			
GASOLINE (UNLEADED)			•	
HYDROCHLORIC ACID 37%		•		
METHYL ETHYL KETONE (MEK)	•			
METHYLENE CHLORIDE	•			
SODIUM HYPOCHLORITE 5% (BLEACH)		•		
SODIUM HYDROXIDE 50%		•		
SULPHURIC ACID 98%		•		
XYLENE		•		

Excellent = +/- 1% weight change, Very Good = +/- 1-10% weight change, Fair = +/- 10-20% weight change, Poor = > 20% weight change

APPLICATION INFORMATION

CURE
A 12.7mm thick section of Devcon Plastic Steel® Putty (SF) will harden at 21ºC 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 mass used and the temperature at the time of repair.

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

- All surfaces must be dry, clean and rough.
- If surface is oily or greasy use Devcon Fast Cleaner 2000 Spray / Cleaner Blend 300 to degrease the surface.
- Remove all paint, rust and grime from the surface by abrasive blasting or other mechanical techniques.
- Aluminum repairs: Oxidation of aluminum surfaces will reduce the adhesion of an epoxy to a surface. This film must be removed before repairing the surface, by mechanical means such as grit-blasting or chemical means.
- Provide a “profile” on the metal surface by roughening the surface. This should be done 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. 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 may be required 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).
- Chemical cleaning with Devcon Fast Cleaner 2000 Spray / Cleaner Blend 300 should follow all abrasive preparation. 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 38ºC - 43º 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.
- Always try to make the repair as soon as possible after cleaning the substrate, to avoid oxidation or flash rusting. If this is not practical, a general application of FL-10 Primer will keep metal surfaces from flash rusting

MIXING
Plastic Steel 5 Minute Putty is formulated to be a dense mix that can be applied easily to overhead and vertical surfaces without running or sagging. Add the hardener to resin and mix thoroughly on a mixing board using a spatula. Do not mix in the containers. 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 5 Minute Putty can be applied when temperatures are between 13ºC and 52ºC. Spread the putty over prepared surface with a putty knife. Press firmly to ensure maximum surface contact and avoid trapping air.
To bridge large gaps or holes use fibreglass, expanded metal or other mechanical fasteners.

SHELF LIFE & STORAGE
A shelf life of 3 years from date of manufacture can be expected when stored at room temperature (22ºC) in their original containers

PRECAUTION For complete safety and handling information, please refer to Material Safety Data Sheets (MSDS) prior to using this product.

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

DISCLAIMER
All information on this data sheet is based on laboratory testing and is not intended for design purposes.
ITW Performance Polymers makes no representations or warranties of any kind concerning this data.

For product information visit www.devconeurope.com alternatively for technical assistance please call +353 61 771 500.

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