



## CARBIDE PUTTY

## PRODUCT BULLETIN

### Product Description

Economical protection against wear, abrasion, and most chemicals.

### Features and benefits

- Carbide filled epoxy putty is extremely wear resistant
- Temperature resistant to 121 °C
- Room temperature cure
- Non sagging putty

### Recommended Applications

- Preventing abrasion to pipe elbows
- Repairing pulverizers and slurry lines
- Protecting cyclones and exhauster fans
- Protecting chutes subject to sliding wear

#### Typical Physical Properties: Cured 7 days @ 24°C

Colour	Grey
Mixed Viscosity	Putty
% Solids by Volume	100
Cured Density	1.75 gm / cc
Specific Volume	574 cm <sup>3</sup> / kg
Pot life at 24°C (0.5kg mass)	50 minutes
Compressive Strength ASTM D695	56 MPa
Adhesive Tensile Shear ASTM D1002	9.3 MPa
Cured Hardness Shore D ASTM D2240	85 D
Dielectric Strength, volts / mm ASTM D149	7874
Coverage	1148 cm <sup>2</sup> / kg @ 5mm
Temperature Resistance	Wet 49°C Dry 121°C

### Chemical Resistance: 7 days room temperature cure (30 days immersion at 24°C)

Kerosene	VG	Methanol	U
10% hydrochloric acid	F	Toluene	VG
Chlorinated solvent	VG	Ammonia	VG
10% sulphuric acid	E	10% Sodium Hydroxide	VG

KEY: E = Excellent, 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

NOTE: This bulletin was prepared in good faith from the best information available at the time of issue. However, users should confirm that the product is acceptable for their intended purposes.

DPB39

Apr 2001

## Surface Preparation

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

- First degrease the surface by using Devcon Cleaner Blend 300 #19510. All oil, grease and dirt must be removed before applying any epoxy material.
- All surfaces must be 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 75 – 125 micron profile is desired for an application. Do Not “feather edge” epoxy material. Epoxy material must be “locked” in by defined edges and a good 75 – 125 micron 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 an 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 Devcon Cleaner Blend 300. 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 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 – Resin to Hardener: Weight 9:1, Volume 4:1

Add the hardener to the resin. Mix thoroughly with screwdriver 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.

## Application

Spread evenly over prepared application surface with a putty knife. Press material into all cracks or voids to expel entrapped air and to ensure that the epoxy is in contact with substrate. Apply a minimum of 1/16” thickness. Do not feather edge. Use butt joints.

## Cure

A 2.7mm thick section of Devcon Epoxy will hard @ 24°C in 4 hours. The material will be fully cured in 16 hours. Carbide Putty may be troweled on a vertical surface up to 6mm thick without sagging. Multiple coats over each layer within a 4 hour window without any surface preparation.

## PRECAUTION

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

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

Stock No.	Unit Size
10050	1.5 kg

Manufactured by  
ITW Polymers & Fluids Pty Ltd  
ABN 49 002 237 103

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