ALUMINIUM PUTTY F PRODUCT BULLETIN

Product Description

Aluminium-filled epoxy putty for rebuilding and repairing to aluminium castings, parts and equipment.

Features and benefits

- Applies easily. No special tools required
- Bonds to aluminium and many other metals, as well as concrete
- Makes repairs that are non-rusting
- Qualified under Mil. Spec. DOD-C-24176B

Recommended Applications

- Applications requiring an aluminium, non-rusting finish
- Repair and rebuilding of aluminium parts and equipment
- Patching aluminium castings
- Makings jigs and fixtures

Typical Physical Properties: Cured 7 days @ 24°C

Colour	Aluminium
Mixing Ratio (resin to hardener)	Weight 9:1 Volume 4:1
Mixed Viscosity	Putty
Work Time @ 24°C (0.5kg mass)	45 minutes
% Solids by Volume	100
Cured Density	1.58 gm/cc
Cure Shrinkage ASTM D2566	0.0008 cm/cm
Compressive Strength ASTM D695	58.1 MPa
Adhesive Tensile Shear ASTM D1002	17.9 MPa
Cured Hardness Shore D ASTM D2240	85D
Dielectric Strength, volts/mm ASTM D149	3937
Temperature Resistance:	Wet 50°C Dry 120°C
Coverage	1264 cm^2/kg @ 5mm

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

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

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 13°C-32°C. Under cold conditions, heating the repair area to 38° - 43°C is recommended.

Mix Ratio – Resin to hardener: Weight 9:1, Volume 4:1

5. Add hardener to resin and mix thoroughly with a putty knife until a uniform, streak-free consistency is obtained (about 4 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 45 minutes @ 24°C
- Functional (75%) cure is achieved in 16 hour @ 24°C
- For maximum physical properties, heat cure for 4 hours @ 95°C after curing at room temperature for 2-1/2 hours

Machining

- Allow material to cure for at least 6-8 hours at 24°C hours before machining
- Lathe speed 48m/minute
- Cut: dry
- Tools: Carbide top rake 6° (+/- 2°) – Side/front 8° (+/- 2°)
- Feed rate (rough): Travel speed .020 Rough cut .020 - .060
- Feed rate (finishing): Travel speed .010 Finish cut .010
- 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
10610	0.5kg

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

Queensland Distributor
INTERNATIONAL TRADERS Pty Ltd
ABN 27100193619
6/286 Evans Road,
Salisbury - BRISBANE- QLD 4107
Ph 3272 9051 Fax 3272 7477