Brunel Close, Park Farm
Wellingborough
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ALUMINIUM PUTTY (F)

PRODUCT DATA SHEET

Aluminium-filled epoxy putty for effective, cost-efficient repairs to aluminium castings, parts and equipment.

FEATURES

- Two-part compound mixes and applies easily
- Bonds to aluminium and many other metals, as well as concrete and thermoset plastics
- Cures overnight at room temperature
- Non-rusting cured material can be machined, drilled or tapped using conventional metal working tools.
- Excellent resistance to CFC's
- Qualified under Mil. Spec. DOD-C-24176 (SH) type 11

RECOMMENDED APPLICATIONS

- For those requiring an aluminium, non-rusting finish
- Repair and repairing aluminium parts and equipment
- Patching aluminium castings

PRODUCT DATA
Typical Properties:

Colour	Aluminium
Mix consistency	Putty
Pot life @ 21°C	60 minutes
Adhesive tensile shear	47N/mm²
Compressive strength	58N/mm²
Operating temperature	121ºC
Cured hardness shore D	85D
Specific volume	429cm³/kg
Coverage, cm²/kg @ 6.35mm	980
Dielectric strength, volt/mil	100
Cure shrinkage cm/cm	0.0008
Mix ratio	Wt: 9.0:1
	Vol: 4.00:1

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

Kerosene	Very Good	Methanol	Fair
Hydrochloric Acid 10%	Very Good	Toluene	Very Good
Chlorinated solvent	Very Good	Ammonia	Very Good
Sulphuric Acid 10%	Very Good	Sodium Hydroxide 10%	Unsatisfactory

Please consult ITW Devcon for other chemicals.

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.

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APPLICATION INFORMATION

General 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.
- Aluminium repairs: Oxidation of aluminium 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: Mix ratio - Weight 9.0 : 1 Volume 4.0 : 1

Aluminium 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.

Application:

Spread epoxy over prepared surface with a putty knife or similar tool. Press material firmly into all cracks and voids to ensure maximum surface contact and avoid trapping air. Apply a minimum of 1.6mm thickness. Do not feather edge. Use butt joints.

Cure:

A 12.7mm thick section of Devcon Epoxy will harden at 24ºC in 4 hours. The material will be fully cured in 16 hours.

SHELF LIFE

A shelf life of three years from date of manufacture can be expected when stored at room temperature (22ºC) in their original containers.

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PRECAUTION

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

ORDERING INFORMATION:

Stock No	Unit size
10611	Aluminium Putty (F) 500g
10615	Aluminium Putty (F) 1kg
10617	Aluminium Putty (F) 10kg
15980	Primer FL-10 112g
19550	Fast Cleaner 2000 Spray 500ml
19510	Cleaner Blend 300 250ml

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.

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

For technical assistance please call 01933 675299