

# TECHNICAL DATA SHEET – ALUMINIUM PUTTY (F)
# ALUMINIUM-FILLED EPOXY PUTTY

Revised: 05/2018

## ORDERING INFORMATION
**STOCK NO.:** 10611
**PACKAGE SIZE:** 500g

## DESCRIPTION
Aluminium-filled epoxy putty, use for rust free and effective repair work.

## RECOMMENDED APPLICATIONS
- Use on applications requiring an aluminium, non-rusting finish
- Repairing aluminium castings, parts and equipment
- Patching aluminium castings

## PRODUCT DATA

### TYPICAL PHYSICAL PROPERTIES

| | |
|---|---|
| COLOUR | Aluminium |
| MIX RATIO BY VOLUME | 4:1 |
| MIX RATIO BY WEIGHT | 9:1 |
| % SOLIDS BY VOLUME | 100 |
| POT LIFE AT 25°C/ MINS | 60 |
| SPECIFIC VOLUME CC/KG | 632 |
| CURED SHRINKAGE CM/CM | 0.0008 |
| SPECIFIC GRAVITY | 2.33 |
| TEMPERATURE RESISTANCE / °C | Dry 121°C |
| COVERAGE | 1264cm²/Kg @ 5mm |
| CURED HARDNESS / SHORE D | 85 D |
| DIELECTRIC STRENGTH KV/MM | 3.9 |
| ADHESIVE TENSILE SHEAR / MPA | 18 |
| COMPRESSIVE STRENGTH MPA | 58 |
| COEFFICIENT OF THERMAL EXPANSION X10⁻⁶ CM/CM/°C | 52 |
| THICKNESS PER COAT / MM | As Required |
| FUNCTIONAL CURE TIME /HOURS | 16 |
| RECOAT TIME /HOURS | 4 |
| MIXED VISCOSITY /CPS (WHERE APPLICABLE) | Putty |

## 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 10% | | | • | |
| METHYL ETHYL KETONE (MEK) | • | | | |
| METHYLENE CHLORIDE | • | | | |
| SODIUM HYPOCHLORITE 5% (BLEACH) | | | • | |
| SODIUM HYDROXIDE 10% | • | | | |
| SULPHURIC ACID 10% | | | • | |
| 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 Epoxy will harden at 21°C in 4 hours. The material will be fully cured in 16 hours. 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.
- 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 38°C - 43° C immediately beforeapplying any of Devcon’s Metal-filled Epoxies is recommended. This procedure dries off anymoisture, contamination or solvents and assists the epoxy in achieving maximum adhesionto 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
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.

### SHELF LIFE & STORAGE
A shelf life of 3 years from date of manufacture can be expected when stored at room temperature (22°C) 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
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