

TECHNICAL DATA SHEET – BRONZE PUTTY (BR)
BRONZE-FILLED EPOXY

Revised: 05/2018

ORDERING INFORMATION
STOCK NO.: 10261
PACKAGE SIZE: 500g

DESCRIPTION
Bronze-filled epoxy for repairing, rebuilding and maintaining bronze parts and equipment.

RECOMMENDED APPLICATIONS
- Repairs cracks, dents and breaks in equipment, machinery or castings
- Rebuilds parts and equipment
- Rebuilds shafts, trays and chutes
- Repairs to food processing equipment

PRODUCT DATA

TYPICAL PHYSICAL PROPERTIES

COLOUR	Bronze
MIX RATIO BY VOLUME	3:1
MIX RATIO BY WEIGHT	9:1
% SOLIDS BY VOLUME	100
POT LIFE AT 25°C/ MINS	35
SPECIFIC VOLUME CC/KG	447
CURED SHRINKAGE CM/CM	0.001
SPECIFIC GRAVITY	2.24
TEMPERATURE RESISTANCE / °C	Dry 121°C
COVERAGE	894cm²/Kg @ 5mm
CURED HARDNESS / SHORE D	85 D
DIELECTRIC STRENGTH KV/MM	1
ADHESIVE TENSILE SHEAR / MPA	18
COMPRESSIVE STRENGTH MPA	59
COEFFICIENT OF THERMAL EXPANSION $X10^{-6}$ CM/CM/°C	59.4
THICKNESS PER COAT / MM	As Required
FUNCTIONAL CURE TIME /HOURS	16
RECOAT TIME /HOURS	4
MIXED VISCOSITY /CPS (WHERE APPLICABLE)	Putty

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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.
- 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 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
Bronze 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 the resin and mix thoroughly on a mixing board using a spatula. Do not mix in the containers.

APPLICATION
For best results, product should be kept and applied at room temperature. Bronze Putty can be applied when temperatures are between 13°C and 52°C. Spread Bronze 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, sheet metal or wire mesh.

SHELF LIFE & STORAGE
A shelf life of 3 years from date of manufacture can be expected when stored at room temperature (21°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 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 Performance Polymers makes no representations or warranties of any kind concerning this data.

For product information visit www.devconeurope.com
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