



Brunel Close, Park Farm
Wellingborough
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01933 675299
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BRONZE PUTTY (BR)

PRODUCT DATA SHEET

Bronze putty is a bronze-filled epoxy for repairing, rebuilding and maintaining bronze parts and equipment.

FEATURES

- Bonds securely to bronze alloys, brass, copper, ferrous metals and concrete
- Two-part epoxy compound mixes and applies fast and easily.
- Cured material can be machined, drilled or tapped using conventional metal working tools.

RECOMMENDED APPLICATIONS:

- Repairs cracks, dents and breaks in equipment, machinery or castings
- Rebuilds parts and equipment
- Rebuilds shafts, trays and chutes
- Food processing equipment repairs

PRODUCT DATA

Typical Properties

Colour.....	Bronze
Mixed consistency.....	Putty
Pot life @ 21°C.....	35 minutes
Adhesive tensile shear ASTM D1002.....	18 N/mm ²
Compressive strength ASTM D695.....	59 N/mm ²
Operating temperature.....	121°C
Cured hardness shore D ASTM D2240.....	85D
Specific volume.....	447 cm ³ /kg
Coverage cm ² /kg @ 6.35mm.....	700
Dielectric strength volt/mil ASTM D149.....	25
Cure shrinkage cm/cm ASTM D2566.....	0.0010
Mix ratio.....	wt: 9.0 : 1
.....	Vol: 3.0 : 1

CHEMICAL RESISTANCE: 7 days room temperature (30 days immersion @ 24°C)

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

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.
- 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: Mix ratio - Weight 9:1, Volume 3:1

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.

Cure & Shelf Life:

A 12.7mm thick section of Devcon Epoxy will harden at 24°C in 4 hours. The material will be fully cured in 16 hours. The actual cure time of epoxy is determined by the size of the mass of epoxy and the temperature. When temperatures are below 21°C cure the pot life will be longer, and above room temperature the cure and pot life will be shorter.



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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

<u>Stock No</u>	<u>Unit size</u>
10261	Bronze Putty (BR) 500g
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 + 44 (0) 1933 675299