



Brunel Close, Park Farm
 Wellingborough
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 ISS 3.0 28/10/02

WET SURFACE REPAIR PUTTY (UW)

PRODUCT DATA SHEET

Unique, non-rusting, high exothermic epoxy for repairing, patching and rebuilding equipment in chronically wet environments, even under water.

FEATURES

- Special formulation is non-rusting
- The applied putty penetrates through wetness to bond securely to steel, iron, aluminium, brass, bronze, concrete, wood and some plastics
- May be used in salt/fresh water
- Non-sagging putty can be applied to a vertical surface

RECOMMENDED APPLICATIONS

- Repairing and fitting pipes, valves, pumps, tanks and other equipment in marine environments, offshore drilling, water treatment plants and paper and pulp mills
- Repairing concrete pipes and vessels that are in wet environments

PRODUCT DATA

Typical Properties:

Colour.....	Grey
Mixed Consistency.....	Putty
Pot life 21°C.....	45 minutes
Adhesive tensile shear ASTM D1002.....	18 N/mm ²
Compressive strength ASTM D695.....	39 N/mm ²
Operating temperatures.....	93°C
Cured Hardness shore D ASTM D2240.....	82D
Specific volume.....	642cm ³ /kg
Coverage cm ² /kg @ 5 mm.....	1284
Dielectric strength kV/mm ASTM D149.....	5.9
Mix ratio.....	wt 1.4 : 1
	vol 1.0 : 1
Flexural strength ASTM D790.....	34 N/mm ²
Cure shrinkage, CM/CM ASTM D2566.....	0.002

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

Kerosene	Very Good	Methanol	Unsatisfactory
Hydrochloric Acid 10%	Fair	Toluene	Unsatisfactory
Sulphuric Acid 10%	Unsatisfactory	Ammonia	Very Good
Chlorinated Solvent	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 for dry applications:

- All surfaces must be dry, clean and rough.
- If surface is oily or greasy, use Devcon Fast Cleaner 2000 / 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 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 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.

For underwater or submerged repairs consider the following:

- Remove all dirt, barnacles, flaking paint, and algae/seaweed from the substrate
- Wipe area with a clean cloth to remove any film on the surface. Obviously you cannot degrease underwater, but wiping and turning a clean cloth will often remove any film on the surface.
- Abrade the surface if possible (use mechanical means or a file to accomplish)
- The oxidation can be removed by mechanical means, such as water, grit-blasting, or by chemical means.
- Make the repair as soon as possible to avoid surface contamination

Mixing: Mix ratio - weight 1.40:1 , Volume 1.0:1

Wet Surface Repair 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.



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Application:

For best results, product should be kept and applied at room temperature. Wet Surface Repair Putty can be applied when temperatures are between 13°C and 32°C. When temperatures are below 21°C cure and pot life will be longer, and above room temperature, cure and pot life will be shorter. 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, expanded metal or other mechanical fasteners. Apply a minimum of 1.6mm.

Cure:

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.

SHELF LIFE

A shelf life of three 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 the appropriate Material Safety Data Sheets prior to using this product.

ORDERING INFORMATION:

<u>Stock No</u>	<u>Unit size</u>
11801	Wet Surface Repair Putty 500g
15980	Flexane Primer FL10 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 1933 675299