

CERAMIC REPAIR PUTTY

PRODUCT INFORMATION

	<u>Stock No.</u> 11042	<u>Package Size</u> 1kg
Description	A high performance, trowel applied, ceramic-filled epoxy for rebuilding worn or damaged equipment.	
Recommended Applications	<ul style="list-style-type: none"> • Rebuild worn pump casings and suction plates • Repair tube sheets, heat exchangers and other circulating water equipment • Restore worn chutes and hoppers • Repair and rebuild butterfly and gate valves 	

PRODUCT DATA

Typical Physical Properties	Colour	Dark Blue		
	Mix Ratio by Volume	4.3 : 1		
	Mix Ratio by Weight	7.0 : 1		
	% Solids by Volume	100		
	Pot life at 25°C/ mins	25		
	Specific Volume CC/Kg	591		
	Cured Shrinkage cm/cm	0.002		
	Density g/cm ³	1.69		
	Temperature resistance / °C	Wet 65°C Dry 175°C		
	Coverage	0.591m ² /Kg @ 1mm		
	Cured Hardness / Shore D	90		
	Dielectric Strength KV/mm	14.5		
	Adhesive Tensile Shear / MPa	13.75		
	Compressive Strength MPa	87.5		
	Coefficient of Thermal Expansion x10 ⁻⁶ cm/cm/°C	16		
	Thickness per Coat / mm	N/A		
	Functional Cure Time /Hours	16		
	Recoat Time /Hours	2-4		
	Mixed Viscosity /cps (where applicable)	Putty		
Chemical Resistance	7 days room temperature cure (30 days) - Testing carried out 30 days immersion at 24 °C			
	Ammonia	Excellent	Methylene Chloride	Poor
	Cutting Oil	Excellent	Sodium Hypochlorite 5% (Bleach)	Excellent
	Ethyl Alcohol	Excellent	Sodium Hydroxide 10%	Excellent
	Gasoline (Unleaded)	Excellent	Sulphuric Acid 10%	Excellent
	Hydrochloric Acid 10%	Excellent	Xylene	Excellent
	Methyl	ethyl	Ketone	(MEK)
				Poor

Excellent = +/- 1% weight change
 Very Good = +/- 1-10% weight change
 Fair = +/- 10-20% weight change
 Poor = > 20% weight change



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APPLICATION INFORMATION

Surface Preparation	<ul style="list-style-type: none"> Thoroughly clean the surface with MEK, Acetone, IPA or similar to remove all oil, grease, and dirt. Grit blast surface area with 8-40 mesh grit, or grind with a coarse wheel or abrasive disc pad, to create increased Surface area for better adhesion (Caution: An abrasive disc pad can only be used provided white mesh is revealed). Desired profile is 75-125 microns, including defined edges (do not feather-edge+epoxy). Note: For metals exposed to sea water or other salt solution, grit-blast and high-pressure-water-blast the area, then leave overnight to allow any salts in the metal to sweat+to the surface. Repeat blasting to sweat out+all soluble salts. Perform chloride contamination test to determine soluble salt content (should be no more than 40ppm). Clean surface again with MEK, Acetone, IPA or similar to remove all traces of oil, grease, dust, or other foreign substances from the grit blasting. Repair surface as soon as possible to eliminate any changes or surface contaminants. WORKING CONDITIONS: Ideal application temperature is 10°C to 30°C. In cold working conditions, heat repair area to 30-40°C immediately prior to applying epoxy to dry off any moisture, contamination, or solvents, as well as to assist epoxy in achieving maximum adhesion properties.
Mixing	<p>It is strongly recommended that full units be mixed, as ratios are pre-measured.</p> <ul style="list-style-type: none"> Add hardener to resin Mix thoroughly with screwdriver or similar tool (continuously scrape material away from sides and bottom of container) until a uniform, streak-free consistency is obtained. INTERMEDIATE SIZES (1, 2, 3 lb. units): Place resin and hardener on a flat, disposable surface such as cardboard, plywood, or plastic sheet). Use a trowel or wide-blade tool to mix the material as in Step 2 above. LARGE SIZES: (25 lb., 30 lb., 50 lb. buckets): Use a T-shaped mixing paddle or a propeller-type Jiffy Mixer Model ES on an electric drill. Thoroughly fold putty by vigorously moving paddle/propeller up and down until a homogenous mix of resin and hardener is attained.
Application	<p>Spread mixed material on repair area and work firmly into substrate to ensure maximum surface contact. Ceramic Repair Putty fully cures in 16 hours, at which time it can be machined, drilled, or painted.</p> <p>FOR BRIDGING LARGE GAPS OR HOLES Place fibreglass sheet, expanded metal or mechanical fasteners between repair area and Ceramic Repair Putty prior to application.</p> <p>FOR VERTICAL SURFACE APPLICATIONS Ceramic Repair Putty can be trowel applied up to 13mm (½inch) thick without sagging. Chemical immersion is possible after 24 hours.</p> <p>FOR MAXIMUM PHYSICAL PROPERTIES Cure at room temperature for 2.5 hours, then heat cure for 4 hours @ 93°C.</p> <p>FOR ~ 22°C APPLICATIONS Applying epoxy at temperatures below 22°C lengthens functional cure and pot life times. Conversely, applying above 22°C shortens functional cure and pot life.</p>
Shelf life & Storage	<p>A shelf life of 2 years from date of manufacture can be expected when stored at room temperature.</p>



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Precaution	For complete safety and handling information, please refer to Material Safety Data Sheets prior to using this product.
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	<p>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.</p> <p>For product information visit www.bigagroup.com / www.devconeurope.com alternatively for technical assistance please call +385 52 880 882 or send an e-mail to biga@biga.hr.</p>



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