

TECHNICAL DATA SHEET – BRUSHABLE CERAMIC RED/BLUE

Revised: 05/2018

A HIGH PERFORMANCE, HIGH DENSITY, CERAMIC FILLED, BRUSHABLE EPOXY

ORDERING INFORMATION

STOCK NO.: 11752
PACKAGE SIZE: Red 500g

STOCK NO.: 11762
PACKAGE SIZE: Blue 500g

DESCRIPTION

A high performance, high density, ceramic filled, brushable epoxy to seal and protect new or repaired surfaces from cavitation, pitting, erosion and wear.

RECOMMENDED APPLICATIONS

- Seal and protect new equipment exposed to erosion and corrosion
- Protect pump casings, impeller blades, gate valves, water boxes and fan blades
- Rebuild heat exchangers, tube sheets and other circulation water equipment
- Use it as a topcoat on repaired surfaces to provide an exceptionally smooth surface

PRODUCT DATA

TYPICAL PHYSICAL PROPERTIES

COLOUR	Red or Blue
MIX RATIO BY VOLUME	3.4 : 1
MIX RATIO BY WEIGHT	5.6 : 1
% SOLIDS BY VOLUME	100
POT LIFE AT 25^{o}C/ MINS	40
SPECIFIC VOLUME CC/KG	633
CURED SHRINKAGE CM/CM	0.002
DENSITY G/CM^{3}	1.58
TEMPERATURE RESISTANCE / ^{O}C	Wet 65^{o}C Dry 175^{o}C
COVERAGE	0.633m^{2}/Kg @ 1mm
CURED HARDNESS / SHORE D	90
DIELECTRIC STRENGTH KV/MM	15
ADHESIVE TENSILE SHEAR / MPA	13.75
COMPRESSIVE STRENGTH MPA	105
COEFFICIENT OF THERMAL EXPANSION X10^{-6} CM/CM/^{O}C	34
THICKNESS PER COAT / MM	0.25-0.5
FUNCTIONAL CURE TIME /HOURS	24
RECOAT TIME /HOURS	4-6
MIXED VISCOSITY /CPS (WHERE APPLICABLE)	32000

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CHEMICAL RESISTANCE - 7 DAYS ROOM TEMPERATURE CURE (30 DAYS)
TESTING CARRIED OUT 30 DAYS IMMERSION AT 24°C

	POOR	FAIR	VERY GOOD	EXCELLENT
AMMONIA			•	
CUTTING OIL				•
ETHYL 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
Working time is 40 minutes at 21°C. Brushable Ceramic will achieve a tack-free finish approximately 2-3 hours after applying. Functional cure is achieved in about 24 hours at 21°C. Cure may be accelerated by using heat after the coating has been allowed to harden under ambient conditions. Material will fully cure at 65°C in 4 hours. Remember the maximum re-coat time between coats is 4-6 hours. Each coat should be 0.5-1.0mm per coat. Two coats insure a pinhole free lining.

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.
- All surfaces must be roughened, ideally by grit blasting (3-16 mesh/cm grit size) or by grinding with a coarse wheel or disc. This creates increased surface area and ”edges” to lock into, and essential for successful application.
- 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.
- Heating the repair area to 37°C - 40°C immediately before applying Brushable Ceramic is recommended. This procedure dries off any moisture, contamination or solvents and assists the Ceramic System in achieving maximum adhesion to the substrate.

MIXING
Brushable Ceramic is formulated to brush easily onto prepared surfaces with a short bristle brush. Add hardener to resin and mix thoroughly with a spatula or similar tool until a uniform, streak-free consistency is obtained, this should take about 4 minutes. Be sure to mix material from the bottom and sides of container. It is strongly recommended that full container units be mixed

APPLICATION
For best results, product should be kept and applied at room temperature. Brushable Ceramic can be applied when temperatures are between 15°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.

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 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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