



Brushable Ceramic White

Description: A brushable, high performance ceramic-filled epoxy for sealing, protecting and repairing surfaces subject to erosion, corrosion and wear.

Intended Use: Industrial Use: Protect pump casings, impeller blades, gate valves, water boxes, and fan blades; rebuild heat exchangers, tube sheets, and other water circulating equipment; top coat on repaired surfaces; seal and protect new equipment exposed to erosion and corrosion

Features:

- Excellent chemical resistance
- Temperature resistance to 350°F (177°C)
- Applies easily with short-bristle brush or roller
- Low viscosity, self-leveling liquid
- NSF® Approved (Certified to ANSI/NSF61)

Limitations: Suitability of product is determined by the end user for their application and process.

Typical Physical Properties: Technical data should be considered representative or typical only and should not be used for specification purposes.

Cured 7 Days @ 75°F (24°C)	Typical Values	Standard Tests
Adhesive Tensile Shear	2,000 psi (13.8 MPa)	Adhesive Tensile Shear ASTM D 1002
Coefficient of Thermal Expansion (x10-6)	27.5 in/in.°F (49.5 cm/cm.°C)	CTE ASTM D 696
Compressive Strength	13,200 psi (91MPa)	Cure Shrinkage ASTM D 2566
Cured Shrinkage	0.0020 in/in (0.0020 cm/cm)	Compressive Strength ASTM D 695
Dielectric Constant	3.87 @ 1 MHz	Dielectric Constant ASTM D 150
Flexural Strength	8,000 psi (55 MPa)	Dielectric Strength, volts/mil ASTM D 149
Hardness	84 Shore D	Flexural Strength ASTM D 790
Salt Spray Resistance	5,000 hrs	Hardness Shore D ASTM D 2240
Solids by Volume	100	Modulus of Elasticity ASTM D 638
Temperature Resistance	Wet: 150°F (65°C); Dry: 350°F (176°C)	Thermal Conductivity ASTM C 177
Uncured Properties @ 72°F (23°C)		
Color	White	
Coverage (15 mil / 0.38 mm)	7.6 ft ² /lb (1.56 m ² /kg)	
Functional Cure	16 hrs	
Mix Ratio by Volume	5.6:1	
Mix Ratio by Weight	8.5:1	
Mixed Viscosity	40,000 cP	
Pot Life @ 75°F (24°C)	21 min	
Recoat Time	4-6 hrs.	
Specific Gravity	12.77 lb/gal (1.53 g/cm ³)	
Specific Volume	16.5 in ³ /lb. (0.596 cm ³ /g)	

Surface Preparation:

1. Thoroughly clean the surface with Devcon® Cleaner Blend 300 to remove all oil, grease and dirt.
2. 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 metal is revealed). Desired profile is 3-5mil, 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 40 ppm).

3. Clean surface again with Devcon® Cleaner Blend 300 to remove all traces of oil, grease, dust or other foreign substances from the grit blasting.
4. Repair surface as soon as possible to eliminate any changes or surface contaminants.

WORKING CONDITIONS: Ideal application temperature is 55°F to 90°F (13°C - 32°C). In cold working conditions, directly heat the repair area to 100-110°F (38°C - 43°C) prior to applying epoxy and maintain at this temperature during product cure to dry off any moisture, contamination or solvents, as well as to achieve maximum performance properties.

Mixing Instructions: ---- It is strongly recommended that full units be mixed, as ratios are pre-measured. ----

1. Add hardener to resin
2. 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.

CONTAINER SIZES (3 lb, 4 lb, 25 lb / 0.5 Kg, 1.8 Kg, 11.4 Kg): To mix, use a propeller-type Jiffy Mixer on an electric drill. Use model HS-1 for the (3 and 4 lb / 0.5 & 1.8 Kg) kits and e model ES for 25 lb / 11.4 Kg kits. Mix until color is uniform.

Note: Keep propeller below liquid line, as additional air can be added to mixture, resulting in air bubbles on the surface of

the finished product.

Application Instructions:

Apply two thin coats (8-15 mils) of Brushable Ceramic to ensure a lack of pinholes or holidays on the substrate (a low voltage, holiday detector will ensure a pinhole-free coating). Brushable Ceramic fully cures in 16 hours, at which time it can be machined, drilled or painted.

FOR GREATER THICKNESS

Use Brushable Ceramic as a coating in combination with Ceramic Repair Putty. For proper wear and adhesion, maximum thickness should not exceed 40 mils.

FOR ± 70°F (21°C) APPLICATIONS

Applying epoxy at temperatures below 70°F (21°C) lengthens functional cure and pot life times. Conversely, applying above 70°F shortens functional cure and pot life.

Storage:

Shelf life 3 yrs from manufacture. See package label. Store at room temperature, 70°F (21°C)

Compliances:

NSF-certified for potable water applications For NSF certification a cure time of 7 days is required. Approved for use in meat and poultry plants

Chemical Resistance:

Chemical resistance is calculated with a 7 day, room temp. cure (30 days immersion) @ 75°F (24°C)

Benzene	Excellent
Gasoline (Unleaded)	Excellent
Hydrochloric 10%	Very good
Kerosene	Excellent
Mineral Spirits	Excellent
Nitric 50%	Poor
Phosphoric 10%	Very good
Potassium Hydroxide 40%	Excellent

Sodium Hydroxide 10%	Excellent
Sodium Hydroxide 50%	Excellent
Sodium Hypochlorite	Very good
Sulfuric 10%	Very good
Sulfuric 50%	Fair
Toluene	Excellent
Xylene	Fair

Precautions:

FOR INDUSTRIAL USE ONLY: Please refer to the appropriate Safety Data Sheet prior to using this product.

Warranty:

ITW Performance Polymers 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.

Order Information:

11770 - 2 lb. (0.91 Kg)

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