



# Brushable Ceramic Blue/Red

- Description:** A brushable, high performance ceramic-filled epoxy for sealing, protecting and repairing surfaces subject to erosion, corrosion and wear.
- Intended Use:** 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 water circulating equipment; top coat for providing exceptionally smooth surface to repaired equipment.
- Product features:**
  - Approved for use in meat and poultry plants (red only)
  - Excellent chemical resistance
  - Temperature resistance to 350°F
  - Applies easily with short-bristle brush or roller
  - Low viscosity, self-leveling liquid
- Limitations:** None

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

**Typical Physical Properties:**

**Cured 7 days @ 75° F**

<b>Adhesive Tensile Shear</b>	<b>2,000 psi</b>
<b>Brush Coat Thickness</b>	<b>10-20 mils (.010-.020 in.)</b>
<b>Coefficient of Thermal Expansion</b>	<b>25.6 [in/in/°F]x10(-6)</b>
<b>Color</b>	<b>Red or Blue</b>
<b>Compressive Strength</b>	<b>13,700 psi</b>
<b>Coverage/lb</b>	<b>7.9 sq.ft./lb@ 0.015"</b>
<b>Cured Hardness</b>	<b>85 D</b>
<b>Cured Shrinkage</b>	<b>0.0020 in./in.</b>
<b>Dielectric Constant</b>	<b>3.87 @ 1 MHz</b>
<b>Flexural Strength</b>	<b>8,000 psi</b>
<b>Functional Cure</b>	<b>16 hrs.</b>
<b>Mix Ratio by Volume</b>	<b>3.4:1</b>
<b>Mix Ratio by Weight</b>	<b>5.6:1</b>
<b>Mixed Viscosity</b>	<b>32,000 cps</b>
<b>Pot Life @ 75F</b>	<b>40 min.</b>
<b>Recoat Time</b>	<b>4-6 hrs.</b>
<b>Salt Spray Resistance</b>	<b>5,000 hrs</b>
<b>Solids by Volume</b>	<b>100</b>
<b>Specific Gravity</b>	<b>1.64</b>
<b>Specific Volume</b>	<b>16.9 in.(3)/lb.</b>
<b>Taber Wear (CS-17,1kg,1000 cycles)</b>	<b>49 mg loss</b>
<b>Temperature Resistance</b>	<b>Wet: 150°F; Dry: 350°F</b>

**TESTS CONDUCTED**

- Compressive Strength ASTM D 695
- Cured Hardness Shore D ASTM D 2240
- Cure Shrinkage ASTM D 2566
- Flexural Strength ASTM D 790
- Thermal Conductivity ASTM C 177
- Adhesive Tensile Shear ASTM D 1002
- Dielectric Strength, volts/mil ASTM D 149
- Coef. of Thermal Expansion ASTM D 696
- Dielectric Constant ASTM D 150

**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 40ppm).
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. In cold working conditions, directly heat repair area to 100-110°F 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.

**LARGE SIZES (3 lb, 4 lb, 25 lb):** Use a propeller-type Jiffy Mixer on an electric drill. Use model HS-1 for 3 lb and 4 lb kits. Use model ES for 25 lb kit. Mix until color is uniform and consistent.

**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 (10 - 20 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 APPLICATIONS**

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

**Storage:**

Store at room temperature, 70 °F.

**Compliances:**

Approved for use in meat and poultry plants (red only)

**Chemical Resistance:**

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

Benzene	Excellent	Sodium Hydroxide 10%	Excellent
Gasoline (Unleaded)	Excellent	Sodium Hydroxide 50%	Excellent
Hydrochloric 10%	Very good	Sodium Hypochlorite	Very good
Kerosene	Excellent	Sulfuric 10%	Very good
Mineral Spirits	Excellent	Sulfuric 50%	Fair
Nitric 50%	Poor	Toluene	Excellent
Phosphoric 10%	Very good	Xylene	Fair
Potassium Hydroxide 40%	Excellent		

**Precautions:**

Please refer to the appropriate safety data sheet (SDS) prior to using this product.

**For technical assistance, please call 1-855-489-7262**

**FOR INDUSTRIAL USE ONLY**

**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.

**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.

**Order Information:**

- 11762 (Red) 12 lbs.
- 11760 (Red) 2 lb.
- 11767 (Blue) 12 lbs.
- 11765 (Blue) 2 lb.