

BRUSHABLE CERAMIC

TUFF WEAR®

Product Description

TUFF WEAR® BRUSHABLE CERAMIC is 100% solids ceramic reinforced epoxy based compound that gives excellent protection against pitting, cavitation, abrasion and provides ultra-smooth, high gloss, low friction coating. Tuff wear® Brushable Ceramic is recommended for sealing and protecting equipment from corrosion and wear. It also works as a top coat over Tuff Wear® Wear Resistance Putty / Tuff Wear® Pneu Wear / Tuff Wear® Wearing Compound for applications requiring abrasion and erosion resistant surface rebuilding and lasting protection.

Product Benefits

- Superior adhesion.
- Ultra-smooth brushable consistency with wear resistance.
- High gloss finish fighting friction, turbulence and protecting against cavitation.
- Improves flow properties.
- Easy to mix & use makes it easy for application and reduces downtime.
- Excellent performance in corrosion environment.

Applications

- Heat exchanger
- Condensers
- Pipes and elbows
- Chutes
- Valves
- Water boxes
- Pumps
- Tanks
- Impellers
- Electrostatic precipitators

Technical Data

Typical Properties of Products

Technology	Formulated Epoxy
Color (mixture)	Grey
Components	Two Part: Resin & Hardener
Operating Temperature (°C)	175
Mix ratio, by weight resin: hardener	100:30
Mix ratio, by volume resin: hardener	2.5:1

Typical Properties of Mixed Products

Specific gravity (g/cm ³)	1.42 – 1.45
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Typical Performance During Curing

Gel time @30°C, mass 100 g (minutes)	30 - 35
Working time @30°C, mass 100 g (minutes)	30
Functional curing time @30°C, (hours)	6

Typical Properties of Cured Material

hardness (Shore D), ASTM D 2240	85
Volume solid (%), ASTM D 2697	100
Tensile strength (kg/cm ²), ASTM D 638	435
Compressive strength (kg/cm ²), ASTM D 695	1035
Pull off adhesion (Kg/Cm ²), ASTM D 4541	210

*Technical data should be considered representative or typical only.

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Surface Preparation

- Proper surface preparation is important for good performance of the product. Strict adherence to instructions will enhance the service life.
- All metallic parts should be free from rust, dirt, grease and oil.
- Thoroughly clean the surface with Demech Chemical Cleaner / Conditioner.
- Surface should be roughened by grinding or abrasive blasting to a near to white metal.

Working Condition

- Preheat the surface to warm to touch for removal of moisture if any.
- Ideal application temperature is from 28 to 35°C.
- In cold working conditions (Less than 25°C), it is recommended to mix the product and keep it for 4 minutes or heat the mother plate warm to touch before application or warm up the resin part with heaters to 30-35°C.
- In hot working conditions (More than 40°C), to slow down the cure of Tuff Wear® Brushable Ceramic, mix them in small masses to prevent rapid cure or cool the components before mixing.

Mixing Instruction

- Premix resin with low speed stirrer / jiffy mixer or with long spatula or with any of the tools.
- As ratios are premeasured, it is recommended to mix complete kit of resin & hardener. If small quantities are required, follow the mixing ratio guidelines.
- While resin is being stirred, add hardener contents & stir it thoroughly.
- Keep propeller below liquid line.
- Mix both components together by scraping from the sides until the contents are uniformly mixed.

Applications Instructions

- Apply mixture after proper mixing.
- The thin coat of the product is recommended to apply firmly for good adhesion.
- The remaining mixed product can then be immediately applied on this priming coat.
- Precaution during application should be taken so that there is no air entrapment in the given coat.
- Application of another coat can be done once the previous coat becomes tacky.

Technical Tips

Working time and cure time depends on temperature and mass:

- Higher the temperature, faster the cure.
- Larger the mass of material mixed, faster the cure.

To speed the cure at low temperature:

- Give maturation time to the mixture before using.
- Pre-heat surface to be repaired until warm to the touch.

To slow the cure at high temperatures:

- Mix in small masses to prevent rapid curing.
- Cool resin / hardener component(s).

Storage Warning

Store at room temperature in original packing in dry conditions and away from sunlight and heat.

THIS PRODUCT IS FOR INDUSTRIAL USE ONLY

May cause burn to eyes and skin. In case of contact, wash thoroughly with water and consult doctor. Do not take internally. May be harmful if swallowed. Consult medical practitioner

Disclaimer

The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, results of our product are heavily dependent on the site preparations, production processes and conditions in which you use them.