



# TBS SYSTEM DATA SHEET

## TECHNICAL BARRIER SYSTEMS INC.



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## EMBE® PERMACOAT HD

### SELF LEVELING BROADCAST

#### Description

EMBE® PERMACOAT HD self-leveling broadcast is a monolithic resin rich epoxy system, which can incorporate integral coving. Utilizing pigmented epoxy binder resins and topcoats blended with medium grade industrial granules this industrial system is tough and resistant to a broad range of chemicals. EMBE® PERMACOAT HD is a two-component solvent free epoxy coating providing a tough chemical resistant coating with excellent gloss retention and an applicator friendly viscosity level, typically installed 1/8" thick.

#### Typical Uses

- Commercial Kitchens
- Showers
- Animal Care Centre
- Clean Rooms – Pharmaceuticals
- Waste Treatment facilities
- Industrial warehouse floors

#### Features

- 100% solids epoxy
- No VOC's
- Durable slip resistant surface
- Seamless
- Does not support the growth of bacteria
- Resin rich matrix is recommended for wet areas
- Chemical and stain resistant
- Canadian Food Inspection Agency approved

#### Limitations

- Only for indoor use
- Not for use on or below grade without an effective vapor barrier in place
- Minimum cure temperature 50°F

- Shelf life one year

#### Application

- Substrate should be above 50°F (10°C)
- Substrate must be clean, free of dirt, waxes, grease oil and other foreign matter.
- Concrete floors must have latencies removed, preferably by shot blasting, or mechanical sanding.
- Freestanding water must be removed, and substrate must be completely dry prior to application.
- Must be installed by a TBS Approved Applicator

#### Components

- Primer and Base EMBE Trowel Grade pigmented – 2:1 ratio
- Topcoat EMBE Topcoat Epoxy pigmented – 2:1 ratio

#### Safety Precautions

Please refer to product MSDS sheet.

**Set Time:**

Initial Set - 12 Hours  
 1<sup>st</sup> Grout Coat – 12 Hours  
 2<sup>nd</sup> Grout Coat – 12 Hours

**Cure Schedule:**

(After final grout coat @ 72°F (22°C))  
 Foot traffic – 16 Hours  
 Vehicular Traffic – 36 Hours  
 Full Cure – 7 Days

**Physical Properties (with aggregate)**

(Target thickness 1/16" – 1/4")

<b>Compressive Strength</b>	10,000 psi 75.8 MPa
<b>Tensile Strength</b>	6,000 psi 41.4 MPa
<b>Hardness Shore D</b>	70 d
<b>Impact Resistance</b>	10 ft/lbs
<b>Flammability</b>	self extinguishing
<b>Adhesion to Concrete</b>	>350 psi (2.4 Mpa)

**Additional Data****Flexural Modulus of Elasticity:**

Strength – 4400 psi (30.5 MPa)

**Water absorption:**

0.5% (ASTM –C413)

**Co-efficient of Thermal Expansion:**

2.28 X 10<sup>-5</sup>/°F

Temperature range 72°F (22°C) - 210°F (100°C)

**Chemical Resistance after Full Cure**

**Excellent** = unaffected by chemistry

**Good** = Film integrity intact, slight discoloration, staining, softening

**Not Recommended** = Severe attack, swelling

Hydrochloric Acid 10%	- Excellent
Hydrochloric Acid 36%	- Good
Sulphuric Acid 10%	- Excellent
Sulphuric Acid 40%	- Good
Sodium Hydroxide 10%	- Excellent
Sodium Hydroxide 50%	- Excellent
Brake Fluid	- Excellent
Diesel Fuel	- Excellent
Engine Oil	- Excellent
Gasoline	- Excellent
Jet Fuel	- Excellent
Transmission Fluid	- Excellent
Acetone	- Not Recommended
Benzene	- Excellent
Methyl Ethyl Ketone	- Not Recommended
Varsol	- Excellent
Hydrogen Peroxide	- Excellent
Beer	- Excellent
Coffee	- Excellent
Lard	- Excellent
Pine Oil	- Excellent
Vegetable Oil	- Excellent

Other products not listed, please contact Technical Barrier Systems Inc.