TECHNICAL DATA SHEET

TEL: 905-795-9900 FAX: 905-795-9912
TOLL FREE: 800-387-5703

EMAIL: INFO@KELMAR.COM
WEB: WWW.KELMAR.COM

EMBE® PERMASEAL

Industrial Floor Coating

Description

EMBE® PERMASEAL is a two-component solvent free, 100% solids epoxy providing a tough chemical resistant coating with excellent gloss retention and an applicator friendly viscosity level. PERMASEAL will provide a high gloss, with good chemical resistance.

Typical Uses

- Protection of concrete in new or old floors
- Light to medium duty manufacturing facilities
- Schools, hospitals, dairies, service station bays
- Pharmaceutical Plants

Features

- 100% solids epoxy - No VOC's
- Low viscosity for leveling and adhesion.
- High gloss light reflective finish
- Options include the incorporation of various broadcast aggregates for slip resistance.
- Broad range chemical resistance to many alkalis and acids
- Canadian Food Inspection Agency approved

Limitations

- Only for indoor use
- Not for use on or below grade without an effective vapor barrier in place
- Not recommended for areas subject to extreme thermal shock
- Minimum cure temperature 50°F (10°C)

Product Data

- Finish – Glossy
- Volume Solids – 100%
- Coverage – Wet film – 200 sf /gal @ 8 mills
- Drying time @ 8 mil @ 50% RH
  - To touch – 6 hours
  - To Recoat – 8 hours
  - Foot Traffic – 12 hours
  - Heavy Traffic – 24 hours

Drying time depends on heat, humidity and thickness of film

- Shelf life – 12 months in dry safe area
- Flash point – n/a
- Recover /Cleanup – Xylene
- Surface preparation – Blastrack (shot blast) or mechanical grinding. Do not use acid.

Physical Properties

Tensile Strength	6,400 psi 20.68 MPa
Impact Strength	10 ft/lbs
Abrasion Resistance **ASTM D4060**	CS10 wheel – 500 cycles – 500 gm load <50 mg loss
Elongation **ASTM D638**	23%
Shore D Hardness	65D
Bond Strength	Greater than 1 MPA
Compressive Yield Strength **ASTM D695**	17,200 psi
Flammability **ASTM E-84**	self extinguishing F.S. 14 F.C.0

Packaging

Resin and Hardener
Mix ratio 2 resin: 1 hardener
15-gallon (56.78 Litre) unit

Performance Tips

During the early stages of drying, the coating is sensitive to rain, dew, humidity and moisture condensation. Avoid these conditions during the firs t 16 – 24 hours of curing.
Spreading rates are based on percent of solids but are affected by surface profile, roughness or porosity of the concrete. Rate achieved will also be affected by technique and skill of the applicator.
Always test adhesion by applying a test patch 2 –3 square feet. Allow drying before checking adhesion.

Application Procedures:

- 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 completely dry prior to application.
- Must be installed by a R&D Approved Applicator.

Safety Precautions

Please refer to product MSDS sheet.

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.

Revised April 2015, R&D Technical Solutions Ltd. 800.387.5703