TBS System Data Sheet
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EMBE® EPOXY NOVALAC

Chemical Resistant Floor Coating

Description

This 100% solids NOVALAC epoxy binder is a premium topcoat system that exhibits excellent film appearance and the best overall chemical resistance suitable for continuous immersion service against many reagents.

Typical Uses

- Self-leveling and trowelable floors
- Chemically resistant grouts
- Mortars
- Topcoats

Features:

- 100 % solids epoxy
- Easy to apply
- Good abrasion resistance
- Excellent chemical resistance (see chart below)
- Resistant to amine blush and water spotting
- No VOC's
- Excellent low temperature cure
- Excellent strength and modulus
- Canadian Food Inspection Agency approved

Limitations

- Concrete surfaces should be cured a minimum 28 days before coating or delamination may occur
- 4% or less moisture content
- Cracks and surface defects should first be repaired with a suitable patching compound
- Pot Life is 25 Minutes @ 20°C (68°F) for 150 g Mass
- Minimum cure temperature 50°F (10°C)

Application

- Substrate should be above 50°F(10°C)
- Substrate should be free of dirt, waxes, grease, oil and other foreign materials
- Concrete floors should have latencies removed via shot blasting, mechanical sanding
- Freestanding water should be removed and substrate should be completely dry prior to application.
- Mix well with a mechanical drill mixer for 1-2 minutes
- Pour the product in a bead and spread with a suitable floor squeegee to attain the appropriate coverage
- Back roll with a medium - low pile roller to attain the desired finish
- 2 parts Resin: 1 part Hardener

Packaging

Mix ratio 2part resin: 1 part hardener
Available in 15-gallon (56.78-Litre) units.

Safety Precautions

Please refer to product MSDS Sheet.

Physical Properties

Without Aggregate

Compressive Strength
ASTM D 695-85 — 6,880 psi / 47.44MPa

Compressive Modulus
ASTM D695-85 — 215,000 psi / 1482.37 MPa

Tensile Strength
ASTM D 638-86 — 5,200 psi / 35.85 MPa

Tensile Modulus
ASTM D 638-86 — 174,000 psi / 1200 MPa

Tensile Elongation
ASTM D 638-86 — 16% @ break

Flexural Strength
ASTM D 790-86 — 8,000 psi / 55.16 MPa

Flexural Modulus
ASTM D 790-86 — 257,000 psi / 1771.95 MPa

Hardness (Shore D)
ASTM D 2240-86 — 81

Abrasion Resistance
ASTM D 4060-90 — 0.034-gram weight loss @ 1000 cycles #10 wheel

Viscosity

Temperature	Viscosity
5°C (40°F)	2200 cps
15°C (55°F)	1400 cps
20°C (68°F)	1100 cps
25°C (77°F)	950 cps

Thin Film Set/Walk on Time

Temperature	TFS	WOT
5°C (40°F)	21 hours	30 hours
15°C (55°F)	9.5 hours	16 hours
20°C (68°F)	6.5 hours	10 hours
25°C (77°F)	5.5 hours	9 hours

With Aggregate

Compressive Strength
ASTM C 579 — 5,900 psi – 24 hours / 9,300 psi – 7 days

Compressive Modulus
ASTM C 579 — 275,000 psi / 1896 MPa

Tensile Strength
ASTM C 307 — 2,400 psi / 16.55 MPa

Tensile Modulus
ASTM C 307 — 99,000 psi / 682.58 MPa

Flexural Strength
ASTM C 580 — 4,300 psi / 29.65 MPa

Flexural Modulus
ASTM C 580 — 1,200,000 psi / 8273.7 MPa

Vicat – Walk on time
ASTM C 191-82 — 5.2 hours @ 25°C (77°F)

Chemical Resistance

Reagent	3 Hours	24 Hours	3 Days	7 Days	28 Days
Deionized Water	E	E	E	E	E
Methanol	E	E	E	E	G
Ethanol	E	E	E	E	G
Toluene	E	E	E	E	G
Xylene	E	E	E	E	E
Butyl Cellosolve	E	E	E	E	G
MEK	E	E	E	G	G
10% Lactic Acid	E	E	E	E	E
10% Acetic Acid	E	E	E	E	E
10% Sulfuric Acid	E	E	E	E	E
70% Sulfuric Acid	E	E	E	E	E
98% Sulfuric Acid	E	E	E	G	G
50% Sodium Hydroxide	E	E	E	E	E
10% Sodium Hypochlorite	E	E	E	E	E
1,1,1 Trichloroethane	E	E	E	G	G
10% HCL	E	E	E	E	E
20% Nitric Acid	E	E	E	E	E