ARMOR POLYMERS

Floor Armor Epoxy

Product Description Sheet No. 320

High-Build Epoxy Floor Coating and Epoxy Polymer Concrete for Commercial and Industrial Use

Description

Floor Armor Epoxy is a two-component straw (Clear) or pigmented epoxy floor coating or epoxy polymer concrete (EPC) when aggregate is added. It is a 100% solids, moisture-insensitive, non-shrink, nearly no odor during application.

Application Methods

The mixed polymer may be applied as a neat coating, single or double broadcast system, slurry broadcast system, EPC hand troweled or power troweled.

Use

Used in decorative, commercial, institutional and industrial applications where the toughest heavy-duty industrial and manufacturing floor environments exist.

Benefits

This tough and dense beautiful pigmented seamless polymer overlay wear surfaces are easy to maintain. They require no waxing. They become a monolithic part of the concrete increasing their durability and life cycle. They can provide different appearances from smooth to aggressive textures, solid colors, random flaked or attractive patterns of colors and shapes. They are designed for a variety of environmental exposures.

Advantages

- Complies with USDA, FDA, OSHA, ADA and **LEED® "Green"** requirements
- Great working time
- No VOC's – 100% solids formula
- Moisture-insensitive formula
- Cures down to 50°F (10°C)
- Excellent strength properties
- Excellent impact resistant

Typical Data for Floor Armor Epoxy

Material and curing conditions at 73°F (23°C), 50% R.H unless noted.

COLOR 10 Standard Colors **VISCOSITY** 550 – 750 cps.
MIX RATIO BY VOLUME Comp "A" 2 to Comp "B" 1
POTLIFE 5-35 minutes **CONSISTENCY** Nearly Self-Leveling
TACK-FREE TIME

Substrate Temperature	50°F *	73°F	90°F
	10–12 hrs	6–8 hrs	5–7 hrs

TENSILE PROPERTIES (ASTM D638) 7 days

Tensile Strength	8,800 psi
Elongation at Break	5 %

FLEXURAL PROPERTIES (ASTM D790) 7 days

Flexural Strength	16,000 psi
Tangent Modulus of Elasticity	510,000 psi

SLANT SHEAR STRENGTH (ASTM C882) 7 days

Test Temperature	Value	Mode of Failure
50°F	4,000 psi	100% Concrete Failure
90°F	4,200 psi	100% Concrete Failure

COMPRESSIVE STRENGTH (ASTM D695) Neat Polymer

	50°F *	73°F	90°F
8 hour	3,700 psi	6,300 psi	10,300 psi
1 day	10,100 psi	10,200 psi	10,300 psi
7 days	14,100 psi	14,200 psi	14,200 psi

COMPRESSIVE STRENGTH (ASTM C579) 7 days
EPC 11,500 psi
HARDNESS (INDENTATION - ASTM D2240)
Neat Epoxy, 7 day cure, Durometer, Shore D 80
INDENTATION (LOAD - MIL-D-3134, Para. 4.7.4.2.1)
EPC, 7 day cure, Method: 1 in. diameter steel ram steadily applies a load of 2,000 lbs. for 30 min. on the test specimen that is placed on concrete. Value - 0.004 in. indentation
INDENTATION (IMPACT - MIL-D-3134, Para. 4.7.3)
EPC, 7 day cure, Method: 2 lb. steel ball is dropped twice from a 8 ft. height. Value - 0.012 in. indentation
ADHESION TO CONCRETE (TENSILE PULL - ACI 503 R)
EPC, 7 day cure, - 410 psi, 100% concrete failure
ABRASION RESISTANCE (TABER - ASTM D 4060) EPC, 7 day cure, 1,000 cycles, 1,000 g. load, Wheel No. 17, Loss 0.051 g
WATER ABSORPTION (ASTM D 570)
EPC, 7 day cure, max. 0.15%
COEFFICIENT OF THERMAL EXPANSION (ASTM D696)
Temperature Range -30°C (-22°F) / 30°C (86°F)
7 days 18.0×10^{-6} in / in./°F
FLAMMABILITY (ASTM D635)
EPC, 7 day cure, self-extinguishing
SHELF LIFE 1.5 years in original unopened containers
PACKAGING 3, 5, 15, 150 - Gal/Units

Typical Coverage

Neat Base Coat: 8-10 Mils (130-150 ft^2 / Gal. - Depending on porocity of substrate)
Neat Top Coat: 10 Mils (160 ft^2 / Gal.)
Refer to typical application coverage chart.