

High Viscosity Modified Structural Epoxy System NPR-5305

Typical Physical Properties

NPR-5305 is a rapid curing, high strength, high corrosion resistant modified epoxy resin designed to repair manholes, sumps, wetwells, pipelines, tanks, etc. Excellent cure at low temperatures and in the presence of water. Typically develops a hard surface in one-two hours. Rapid development of physical properties. Excellent chemical resistance to both acids, caustics, gasoline and other hydrocarbons. Film thickness of 100 – 500 mils in a single pass by trowel or brush. Outstanding resistance to sulfuric acid, hydrogen sulfide, nitric acid, sodium hydroxide, gasoline, and other chemicals demonstrated by independent third party testing and extensive field experience.

Specific Gravity (resin)	1.06 – 1.09 G/ml.
Weight Per Gallon (resin)	8.9 – 9.1 Lb
Specific Gravity (hardener)	1.64 – 1.71 G/ml.
Weight Per Gallon (hardener)	13.7 – 14.3 Lb
Weight Per Gallon (mixture)	11.3 – 11.7 Lb
Mix Ratio (Resin/Hardener)	1.5 to 1 By Volume
Mix Ratio (Resin/Hardener)	1 to 1 By Weight
Flexural Modulus (ASTM D-790)	550,000 psi
Flexural Strength (ASTM D-790)	11,500 psi
Tensile Elongation	5%
Tensile Strength (ASTM D-638)	7,000 psi
Compressive Strength (ASTM C-579)	14,000 psi
Coefficient of Linear Thermal Expansion	3.7×10^{-6} cm/cm/°C
Maximum Service Temp. (ambient cure)	150° F(66°C)
Maximum Service Temp. (post cured)	168°F (76°C)
Shore D Hardness (ASTM D-4541-95el)	>86
Shrinkage	<0.5%
Adhesion: Concrete (ASTM D-4541-95el)	Concrete Fails
Adhesion: Steel (ASTM D-4541-95el)	2000 psi
Abrasion Resistance (D4060-95, CS17)	50mg/1000 @1000 gram load