

## **Hex-3R Composite Strengthening Systems**

### **Hex-3R Epoxy 300™**

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The Hex-3R Composite Strengthening Systems provide construction industry professionals with a viable alternative to traditional methods through the application of composite materials science. This carefully designed portfolio of high strength, high modulus, externally applied reinforcing elements represent a cost-effective and efficient alternative to strengthen or stiffen a structure without resorting to remove and replace methods or invasive internal rebuilding techniques.

Hex-3R Epoxy 300™ is a two-component ambient cure epoxy system.

#### **Where to Use**

- ❑ For use as an impregnating resin with the Hex-3R Composite Strengthening System line of fabrics.
- ❑ Hex-3R Epoxy 300™ is used as a sealing coat and impregnating resin on vertical applications.

#### **Advantages**

- ❑ Long pot life
- ❑ Pre-measured, easy to mix
- ❑ Tolerant of moisture before, during and after cure
- ❑ High strength, high modulus
- ❑ Excellent adhesion to concrete, masonry, wood and most structural materials
- ❑ Fully compatible and developed specifically for the Hex-3R Wrap System™

#### **Hex-3R Epoxy 300 Design and Mechanical Properties (neat resin)**

<b>Chemical Characteristic</b>	<b>Value</b>
Heat Deflection Temperature (HDT)	170°F
Application and Cure Temperature Range	50° - 100°F
Pot Life	4 hours at 70°F
Cure Time	48 hours at 70°F
Gel Time	20 hours at 70°F
Viscosity	550 cps at 77°F

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**Hex-3R Epoxy 300 Design and Mechanical Properties** *(continued)*

(Mechanical properties – 1/8 inch castings with 72hr 140°F cure)

Test	Value	ASTM Test Method
Tensile Strength	10,500 psi	D638
Tensile Modulus	459,000 psi	D638
Elongation at Break	4.8%	D638
Flexural Strength	17,900 psi	D790
Flexural Modulus	452,000 psi	D790
Density	1.1567 g/cc	D792
Specific Gravity	1.1597	D792
Glass Transition Temperature (T <sub>g</sub> ) (ultimate 250°F cure)	188°F	D4065
Glass Transition Temperature (T <sub>g</sub> ) DMTA	174°F	D4065

