

TITAN™ CGB18E

CARBON AND GLASS FIBER STRUCTURAL REPAIR SYSTEM

Description

The Titan™-CGB18E structural repair system is comprised of a unique, bi-axial carbon fiber and glass fabric, saturated with NRI's proprietary epoxy system, Titan™-Poxy. The Titan-CGB18E carbon fiber is oriented in the 0° direction while the glass is oriented in the 90° direction with the 0° direction being the primary, continuous fibers. The Titan-Poxy epoxy system is a two-part, 100% solid epoxy system designed for use in a wide variety of environments possessing excellent chemical resistance and high temperature ratings.

Composite Mechanical Properties

Test	Method	Result
Tensile Strength	ASTM D3039	Primary: 113,533 psi Secondary: 25,515 psi
Elongation @ Break	ASTM D3039	1.19%
Tensile Modulus	ASTM D3039	11,956,000 psi
Laminate Thickness	Per layer	0.018"
Hardness, Shore D @ 75°F (24°C)	ASTM D2240	85

Typical Applications

- Structural reinforcement
- Containment and shear reinforcement
- Bridge column repair
- Pile repair

Benefits

- Long working time even in hot environments
- Properties retained even at high temperature use
- Solvent free, no VOC's
- Applicable in damp and wet environments
- High strength and light weight
- Manufactured in ISO 9001 certified facility

Epoxy Properties

VOCs: None

Working Time: 45 Minutes @ 75°F

Initial Cure Time: 4 Hours @ 75°F

Resin Type:

Novalac-based epoxy

Resin Application:

Field mixed and saturated

Service Temperature:

-50° to 250°F

Shelf Life: 12 months with recommended storage methods



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