

# TITAN™-CB18E

## CARBON FIBER STRUCTURAL REPAIR SYSTEM

### Description

The Titan™-CB18E structural repair system is comprised of a unique, bi-axial carbon fiber fabric, saturated with NRI's proprietary epoxy system, Titan™-Poxy. The Titan-CB18E carbon fiber is oriented in the 0° / 90° directions 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: 105,100 psi Secondary: 105,100 psi
Elongation @ Break	ASTM D3039	1.46%
Tensile Modulus	ASTM D3039	7,144,000 psi
Laminate Thickness	Per layer	0.037"
Hardness, Shore D @ 75°F (24°C)	ASTM D2240	85

### Dry Fiber Properties

Property	Value
Tensile Strength	550,000 psi
Dry Fiber Thickness	0.035"
Fiber Architecture	0/90, Biaxial
Weight (per sq yd)	18.58 oz per square yard
Lloyd's Approved Fiber?	Yes

### 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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