

# TITAN™-CU18E

## CARBON FIBER STRUCTURAL REPAIR SYSTEM



### Description

The Titan™-CU18E structural repair system is comprised of a unique, uni-directional carbon fiber fabric, saturated with NRI's proprietary epoxy system, Titan™-Saturant Epoxy. The Titan-CU18E carbon fiber is a uni-directional fabric with the primary, continuous fibers oriented in the 0° direction. The Titan-Saturant 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. The development of this system was designed to conform to ACI440 standards for nonmetallic composite reinforcing solution of concrete.

### Composite Mechanical Properties

Test	Method	Result
Tensile Strength	ASTM D3039	Primary: 144 ksi (9,928.45 bar)
Elongation @ Break	ASTM D3039	1.2%
Tensile Modulus	ASTM D3039	14.7 msi (1,013,529 bar)
Laminate Thickness	Per layer	0.028"
Hardness, Shore D @ 75°F (24°C)	ASTM D2240	85

### Dry Fiber Properties

Property	Value
Tensile Strength	550 ksi (37921.17 bar)
Dry Fiber Thickness	0.026"
Fiber Architecture	0° uni-directional
Weight (per sq yd)	17.40 oz per square yard
Lloyd's Approved Fiber	Yes

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### Typical Applications

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

### Benefits

- Long working time even in hot environments
- Properties retained even at high temperature use
- Solvent free
- Applicable in damp and wet environments
- High strength and light weight
- Manufactured in ISO 9001 certified facility
- Full factory engineering consultation and support, ensuring safe and successful repairs

### Titan-Saturant Epoxy Properties \*

\*See Titan Saturant Epoxy Datasheet for full technical data

