

# RENEWWRAP<sup>®</sup>

## Carbon Bar/Tape



STRUCTURAL STRENGTHENING

## High-Strength Carbon Bar

RenewWrap™ pre-cured carbon fiber bars and tapes are designed to be used in near surface mounted (NSM) strengthening applications. RenewWrap™ CF bars and CF tapes are manufactured with a grit surface (bars) or a textured surface (tapes) to promote adhesion with the bonding resin.

### TYPICAL USES

RenewWrap™ CF Bars or Tapes may be used to strengthen or retrofit a wide range of concrete and masonry structures. They are most commonly used where traditional wet lay-up FRP systems are not suitable or where the FRP reinforcement requires additional protection from abrasion or vehicular traffic.

Typical applications include:

- ◆ Negative moment strengthening of slabs and bridge decks
- ◆ Reinforcement for cantilevered bridge decks for railing and traffic barrier upgrades
- ◆ Transverse reinforcement in double tee parking decks
- ◆ Reinforcing around slab openings
- ◆ Shear and flexural upgrades of walls
- ◆ Warehouse and industrial floor slabs
- ◆ Crack stitching

### BENEFITS

- ◆ Lightweight and easy to handle
- ◆ Non-corrosive, may be placed close to concrete surface
- ◆ Use with RenewWrap™ NSM Gel or other approved resins
- ◆ Recessed reinforcement is protected from abrasion and traffic loadings



### STORAGE AND SHELF LIFE

Store in a cool, dry place at 50-90 °F (10-32 °C) where bars cannot be damaged. No shelf life.

### PACKAGING

CF Bars are available in 20-ft or 40-ft lengths. Contact GeoTree Solutions for custom lengths. CF Tapes are available in up to 40-ft lengths.

### MECHANICAL AND PHYSICAL PROPERTIES

	#3 TAPE	#3 BAR	#4 TAPE
Nominal Diameter <sup>1</sup>	0.177" x 0.63" (4.5mm x 16mm)	0.375 in (10 mm)	0.50 in (13 mm)
Nominal Cross-Sectional	0.11 in <sup>2</sup> (71.2 mm <sup>2</sup> )	0.11 in <sup>2</sup> (71.2 mm <sup>2</sup> )	0.196 in <sup>2</sup> (126.7 mm <sup>2</sup> )
Tensile Strength*	315 kis (2170 MPa)	315 kis (2170 MPa)	300 kis (2068 MPa)
Tensile Modulus of Elasticity*	18 Msi (124 GPa)	18 Msi (124 GPa)	18 Msi (124 GPa)
Elongation at Break*	1.75%	1.75%	1.67%



[www.geotreesolutions.com](http://www.geotreesolutions.com)

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\*ASTM D7205-06