

Product Description: The Crack Stitch® is a pre-impregnated, bi-directional carbon fiber and Kevlar® open grid, fiber reinforced polymer (FRP) composite grid stitch for structurally repairing cracks in concrete. Crack Stitches are installed utilizing the Xtreme Epoxy 4070 or third-party repair materials with high compression strengths ($\geq 5,000$ psi) designed for bonding to concrete to form a Carbon Fiber Reinforced Polymer (CFRP) system. The Crack Stitch® restores structural integrity, durability, and sustainability of the concrete.



FEATURES & BENEFITS

- Composite grid design creates mechanical bonding when installed which prevents travel from occurring
- Installed in direct tension with the crack to stop further lateral expansion of the concrete
- Ultra high-strength, pre-cured carbon fiber tows
- Fast and simple installation; no hole drilling required
- Non-corrosive, will not corrode in the future
- Ultimate tensile strength of 6,600 lbs. (45.505 MPa)

CRACK REPAIR APPLICATIONS

- Commercial & Industrial Concrete Slabs
- Concrete Secondary Containment Areas
- Concrete Structures & Infrastructure
- Concrete Walls, Pools, and Garage Floors

PRODUCT DESIGN

Base Materials: Four carbon fiber tows bonded to Kevlar® to form a composite grid stitch

Color: Black (Carbon Fiber) and Yellow (Kevlar®)

Nominal Size (inches): 10" x 0.75" x 0.09"

PHYSICAL PROPERTIES

Ultimate Strength (Modified ASTM D638):
6,600 lbs. (45.505 MPa)

Nominal Design Strength (ICC# ESR-3815):
5,200 lbs. (35.852 MPa)

Design Strength (ICC# ESR-3815):
4,500 lbs. (31.026 MPa)

CFRP SYSTEM INSTALLATION

Refer to the Carbon Fiber Reinforced Polymer (CFRP) installation instructions on Page 2

SPACING FOR INSTALLATION

Distance between Crack Stitches will be as follows:

$\leq 4"$ (10.2 cm) Thick Concrete = 8" (20.3 cm) Apart
 $6"$ (15.2 cm) Thick Concrete = 6" (15.2 cm) Apart
 $8"$ (20.3 cm) Thick Concrete = 4.5" (11.4 cm) Apart
 $> 8"$ (20.3 cm) Thick Concrete = *Contact Crack Stitch directly for installation details*

CSI SPECIFICATION (CFRP SYSTEM)

A CSI Specification is available to engineers, architects, specifiers, and contractors upon request

WARRANTY

Refer to the Crack Stitch 10-Year Warranty document for details

SHELF LIFE & STORAGE

Shelf Life: Unlimited

Storage: Store in a dry area at 40–100°F (4–35°C)

CAUTION

Wear gloves when handling Crack Stitches

CARBON FIBER REINFORCED POLYMER SYSTEM (CFRP) INSTALLATION INSTRUCTIONS

STEP 1:

- For uneven concrete surfaces, grind the surface to level the area.

STEP 2:

- Lay the stitch perpendicular across the crack.
- Mark a line along the length of the stitch 11" long.
- **Crack Stitch Spacing:**

≤4" (10.2 cm) Thick Concrete = 8" (20.3 cm) Apart

6" (15.2 cm) Thick Concrete = 6" (15.2 cm) Apart

8" (20.3 cm) Thick Concrete = 4.5" (11.4 cm) Apart

STEP 3:

- Chase crack to minimum of ¼" wide by ½" deep.
- Vacuum any remaining dust or debris from area.

STEP 4:

- Cut a slot minimum 1/8" wide 1" deep at each location (may be cut wider and deeper).
- Vacuum any remaining dust or debris from area.
- Dry fit the stitch to be sure the entire stitch is below the surface, then remove the stitch.

STEP 5:

- Fill the slots and crack with adhesive.

STEP 6:

- Embed the stitch into the slot.
- Trowel the adhesive smooth with the surface.
- Add more adhesive if needed and trowel flush.



SCAN
QR CODE FOR
INSTALLATION
VIDEO

