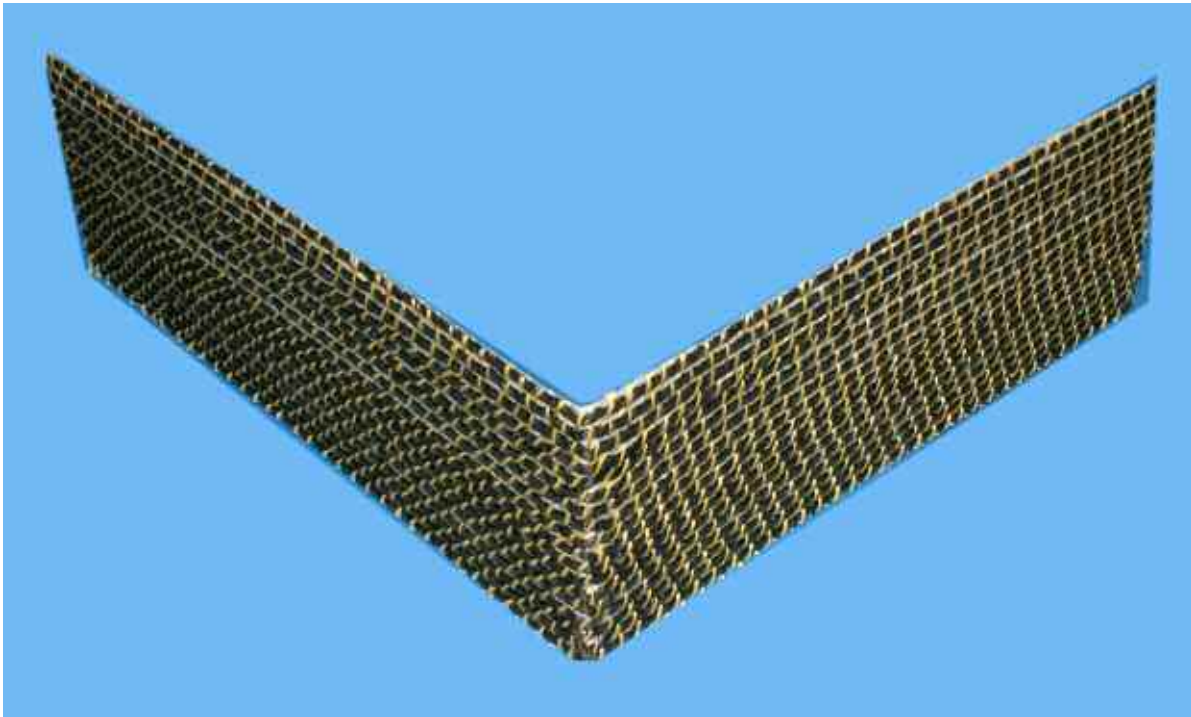


FIBER REINFORCED POLYMER CORNER STRAP



DESCRIPTION:

The pre-preg, pre-cured corner straps are designed based on steel plating systems. They follow ACI design guideline in being slightly less than 90 degrees. *(The function of bend amount is to carry load around corner.)* This has the advantage over wet lay up systems in that the bend is certified in factory. The corner product represents a low profile bearing tendon to distribute load horizontally. Corners can be produced in various plates or solid carbon, glass aramid or grids. Tensile strength and modulus are a function of tow size and layers.

ADVANTAGES:

- Low profile and can be installed behind brick facade or other building facades.
- Legs or overlaps can be added to extend loads
- Parge coats and painting can be used for aesthetics
- Installs in same fashion as straight carbon plate or grids
- Reduces or illuminates contractor error in bending FRP to far to carry load
- Most corners are manufactured with peel-ply technology



FIBER REINFORCED POLYMER CORNER STRAP

GENERAL INFORMATION

CONSTITUENT MATERIALS	Continuous carbon fiber tows with Kevlar cross-weave bonded with epoxy paste.
PRIMARY FIBER DIRECTIONS	0° continuous carbon (unidirectional)
COLOR	Black with yellow cross-weave
SURFACE TEXTURE	Open grid for maximum adhesion. Peel-ply on one side for secondary bonding.
AVAILABLE WIDTHS	4 1/2" (144 mm) 6" (150 mm) <i>special widths available upon request</i>

TYPICAL MATERIAL PROPERTIES

NOMINAL THICKNESS

Carbon Grid Strap 80K	0.06 in	1.5 mm
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NOMINAL TENSILE STRENGTH

270 ksi	1860 MPa	ASTM D3039
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TENSILE STRENGTH PER UNIT WIDTH

Carbon Grid Strap 80K	5.33 kips/in	9.33 kN/m
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NOMINAL TENSILE MODULUS

5,800 ksi	40 GPa	ASTM D3039
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FAILURE STRAIN

1.3%	1.3%	ASTM D3039
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NOTES:

1. Tests conducted at Saginaw Valley State University.
2. Nominal Thickness is the approximate measured thickness of the carbon/Kevlar grid embedded Fortress Toughened epoxy adhesive. Actual thickness is measured in the field may vary slightly due to variations in the thickness of the epoxy adhesive used to bond the grid to the substrate. Tensile strength per unit width is constant.
3. Failure strain is based on reported rupture of strain of continuous carbon fiber strands.

