CFL-1000
Heavy-Duty, Carbon Fiber Laminate Strip

Description
Advanced FRP Systems’ CFL-1000 is a high-strength, high-modulus, pre-cured carbon fiber laminate strip designed to provide structural reinforcement for steel, concrete, timber and masonry structures. CFL-1000 is manufactured through a pultrusion process to ensure the ideal ratio of resin to carbon fiber for optimal strength. Designed to be used with our FRP 100 – Tack Coat as a structural adhesive, these laminate strips should be used anywhere a lightweight, easy to apply, high strength reinforcing system is required.

Product Advantages
- More than 5 times the tensile strength of carbon steel
- Zero VOC polymeric adhesive
- Corrosion resistant Vinyl Ester Resin
- Available in various lengths
- Thickness of 200 mils (0.20 inches) for single layer reinforcement
- Shrouded in Glass Fiber to prevent galvanic corrosion
- Low Coefficient of Linear Thermal Expansion

Suggested Application
Used in conjunction with FRP 100 – Tack Coat, CFL-1000 is ideal for reinforcement of damaged or corroded I-Beams, cracked Girders, damaged Tanks, failing decking, deteriorated concrete, or structural timber. The incredible strength-to-weight ratio of Carbon Fiber Composites makes these systems easy and economical to apply.

Performance Data

<table>
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<th>Test Method</th>
<th>Results</th>
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<tbody>
<tr>
<td>Coefficient of Linear Thermal Exp.</td>
<td>ASTM E831</td>
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<tr>
<td>Tensile Strength</td>
<td>ASTM D3039</td>
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<tr>
<td>Young's Modulus</td>
<td>ASTM D3039</td>
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<tr>
<td>Transverse Tensile Strength</td>
<td>ASTM D3039</td>
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<td>Interlaminar Sheer Strength</td>
<td>ASTM D2344</td>
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<td>Flexural Strength</td>
<td>ASTM D790</td>
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<tr>
<td>Flexural Modulus</td>
<td>ASTM D790</td>
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<tr>
<td>Compressive Strength</td>
<td>ASTM D695</td>
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<td>Elongation at Break</td>
<td>ASTM D 3039</td>
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<td>Fiber Content</td>
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Product Characteristics

Finish: Gloss  
Color: Black  
Density: 1.60 g/mL

Standard size is 5 mm (0.20") thick by 105 mm (4.12") in width.

Available in 5 ft., 8 ft., and 12 ft. lengths. Additional lengths and sizes may be available. Contact Advanced FRP Systems for details on custom sizes.

Consult FRP 100 – Tack Coat product data sheet for information on adhering carbon fiber laminate strips to various substrates. Always ensure proper surface preparation is followed and Laminate strips are clean, dry and free of dust/oil prior to installation. CFL-1000 may chalk or discolor if exposed to UV radiation. If outdoor aesthetics are a concern, then a UV stable topcoat is recommended.

Storage and Shelf Life

CFL-1000 must be stored between 0 – 140 °F, out of direct sunlight. If stored in these conditions, the product will have a 5-year shelf life.

Safety Precautions

Please consult up-to-date Safety Data Sheets (SDS’s) prior to use. An SDS should be available on site whenever Advanced FRP products are being used.

Warranty Information

Advanced FRP Systems, Inc. warrants that our products are free of manufacturing defects in accordance with applicable Advanced FRP quality control parameters. Liability for products proven defective, if any, is limited to replacement of defective product or refund of purchase price as determined by Advanced FRP Systems. Additional warranties and protection are available. Contact Advanced FRP for more information.

Disclaimer

The information and recommendations set forth upon this data sheet are based on years of laboratory and field analysis. This information is intended to be used as guidance only as many factors affect the performance of polymeric systems. Actual exposure conditions are the best test of suitability and Advanced FRP Systems will generally provide complimentary samples for field testing.

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