### Description

HM-30 is a high strength, unidirectional carbon fiber fabric. Material is laminated using HM-180C3P epoxy to form a carbon fiber reinforced polymer (CFRP) used to strengthen structural concrete elements.

### Where to Use

- **Load Increase**
  - Increased live loads
  - Increased traffic volumes on bridges
  - Installation of heavy machinery in industrial building
  - Vibrating structures
  - Changes of building utilization

- **Seismic Strengthening**
  - Column wrapping
  - Masonry walls

- **Damage to Structural Parts**
  - Aging of construction materials
  - Vehicle impact
  - Fire
  - Blast impact

- **Change in Structural Parts**
  - Removing of wall or columns
  - Removal of slab section for openings

- **Design or Construction Defects**
  - Insufficient reinforcements
  - Insufficient structural depth

### Advantages

- Approved by GB50367-2013/GB50728-2011/GB50550-2010
- Used for shear, confinement, or flexural assembly
- Flexible, can be wrapped around complex geometries
- High Strength
- Light Weight
- Non-corrosive
- Alkali Resistant
- Low aesthetic impact
## Storage Conditions
Store dry at 40°-95°F (4°-35°C)

## Shelf Life
10 years

## Color
Black

## Primary Fiber Direction
0° (unidirectional)

## Areal Weight
8.76 oz./sq.yd.(300g/m²)

## Typical Fiber Properties

### Dry Fiber Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Value Of Tensile Strength</td>
<td>$7.1 \times 10^5$psi(4900MPa)</td>
</tr>
<tr>
<td>Tensile Elastic Modulus</td>
<td>$34 \times 10^5$psi(234500MPa)</td>
</tr>
<tr>
<td>Elongation</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

### Laminate Fiber Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Value Of Tensile Strength</td>
<td>$5.51 \times 10^5$psi(3800MPa)</td>
</tr>
<tr>
<td>Tensile Elastic Modulus</td>
<td>$34 \times 10^5$psi(234500MPa)</td>
</tr>
<tr>
<td>Elongation</td>
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</tbody>
</table>

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<thead>
<tr>
<th>Property</th>
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</tr>
</thead>
<tbody>
<tr>
<td>With Concrete</td>
<td>Concrete Damaged: ≥2.5MPa</td>
</tr>
<tr>
<td>Density</td>
<td>0.065lbs.in³(1.8g/cc)</td>
</tr>
<tr>
<td>Nominal Fiber Thickness</td>
<td>0.0065in.(0.167mm)</td>
</tr>
</tbody>
</table>