

## HM-1.4T

### Carbon Fiber Laminate for structural strengthening

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<b>Description</b>	HM-1.4T is a pultruded carbon fiber reinforce polymer(CFRP) laminated designed for strengthening concrete ,timer and masonry structures. HM-1.4T is bonding onto the structure as external reinforcement using HM-160 epoxy resin as the adheisve.
<b>Where to Use</b>	<b>Load Increase</b> <ul style="list-style-type: none"><li>■ Increased live loads in warehouses</li><li>■ Increased traffic volumes on bridges</li><li>■ Installation of heavy machinery in industrial building</li><li>■ Vibrating structures</li><li>■ Changes of building utilization</li></ul> <b>Seismic Strengthening</b> <ul style="list-style-type: none"><li>■ Column wrapping</li><li>■ Masonry walls</li></ul> <b>Damage to Structural Parts</b> <ul style="list-style-type: none"><li>■ Aging of construction materials</li><li>■ Vehicle impact</li><li>■ Fire</li><li>■ Blast impact</li></ul> <b>Change in Structural Parts</b> <ul style="list-style-type: none"><li>■ Removing of wall or columns</li><li>■ Removal of slab section for openings</li></ul> <b>Design or Construction Defects</b> <ul style="list-style-type: none"><li>■ Insufficient reinforcements</li><li>■ Insufficient structural depth</li></ul>
<b>Advantages</b>	<ul style="list-style-type: none"><li>■ Approved by GB50367-2013/GB50728-2011/GB50550-2010</li><li>■ High Strength</li><li>■ Light Weight</li><li>■ Non-corrosive</li><li>■ Alkali Resistant</li></ul>

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## Typical Data

<b>Base</b>	
<b>Shelf Life</b>	Unlimited(no exposure to directsunlight)
<b>Color</b>	Black
<b>Tensile Strength</b>	
<b>Mean Value</b>	$4.49 \times 10^5$ psi(3100MPa)
<b>Design Value</b>	$3.76 \times 10^5$ psi(2600MPa)
<b>Modulus Of Elasticity</b>	
<b>Mean Value</b>	$23.9 \times 10^6$ psi(165,000MPa)
<b>Design Value</b>	$23.2 \times 10^6$ psi(160,000MPa)
<b>Elongation at Break</b>	1.7%
<b>Thickness</b>	1.4mm
<b>Temperature Resistance</b>	> 300°F(> 150C°)
<b>Fiber Volumetric Content</b>	> 68%
<b>Density</b>	0.058 lbs./in <sup>3</sup> (1.6g/cm <sup>3</sup> )