

HM-60

Carbon Fiber Sheet for structural strengthening

Description	HM-60 is 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 <ul style="list-style-type: none">■ Increased live loads■ Increased traffic volumes on bridges■ Installation of heavy machinery in industrial building■ Vibrating structures■ Changes of building utilization Seismic Strengthening <ul style="list-style-type: none">■ Column wrapping■ Masonry walls Damage to Structural Parts <ul style="list-style-type: none">■ Aging of construction materials■ Vehicle impact■ Fire■ Blast impact Change in Structural Parts <ul style="list-style-type: none">■ Removing of wall or columns■ Removal of slab section for openings Design or Construction Defects <ul style="list-style-type: none">■ Insufficient reinforcements■ Insufficient structural depth
Advantages	<ul style="list-style-type: none">■ 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

Typical Data

Storage Conditions	Store dry at 40°-95°F (4°-35C°)	
Shelf Life	10 years	
Color	Black	
Primary Fiber Direction	0° (unidirectional)	
Areal Weight	HM-60	17.52 oz./sq.yd.(600g/m ²)

Typical Fiber Properties

Dry Fiber Typical Properties		
Standard Value Of Tensile Strength	7.1 x 10 ⁵ psi(4900MPa)	
Tensile Elastic Modulus	34 x 10 ⁵ psi(235000MPa)	
Elongation	1.7%	

Laminate Fiber Typical Properties		
Standard Value Of Tensile Strength	5.51 x 10 ⁵ psi(3800MPa)	
Tensile Elastic Modulus	34 x 10 ⁵ psi(235000MPa)	
Elongation	1.7%	
With Concrete	Concrete Damaged: ≥ 2.5MPa	
Density	0.065lbs.in ³ (1.8g/cc)	
Nominal Fiber Thickness	HM-60	0.0130in.(0.334mm)

