



# Gordon Composites™ GC-67-UB

## Advanced Composites

### Key Characteristics

Product Description	
A continuous unidirectional "E" fiberglass/epoxy bar material that provides high strength and stiffness at all thickness ranges. GC-67-UB is manufactured with a proprietary pulforming process in which all glass fibers are pretensioned and aligned during the impregnation and curing process.	
General	
Material Status	• Commercial: Active
Regional Availability	• North America
Filler / Reinforcement	• Glass Fiber, 67% Filler by Weight
Uses	<ul style="list-style-type: none"> <li>• Automotive Applications</li> <li>• Industrial Applications</li> <li>• Marine Applications</li> <li>• Metal Replacement</li> <li>• Sporting Goods</li> <li>• Springs</li> <li>• Structural Parts</li> </ul>
Appearance	• Natural Color
Forms	• Sheet <sup>1</sup> • Unidirectional
Processing Method	• Machining

### Technical Properties <sup>2</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	1.88 g/cm <sup>3</sup>	1.88 g/cm <sup>3</sup>	ASTM D1505
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus			ASTM D3039
-- <sup>3</sup>	5.80E+6 psi	40000 MPa	
-- <sup>4</sup>	1.50E+6 psi	10300 MPa	
Tensile Strength			ASTM D3039
-- <sup>3</sup>	138000 psi	951 MPa	
-- <sup>4</sup>	6000 psi	41.4 MPa	
Tensile Strain <sup>3</sup> (Break)	2.3 %	2.3 %	ASTM D3039
Flexural Modulus	5.50E+6 psi	37900 MPa	ASTM D790
Flexural Strength <sup>5</sup>	153000 psi	1050 MPa	ASTM D790
Compressive Modulus			ASTM D3410
-- <sup>4</sup>	1.70E+6 psi	11700 MPa	
-- <sup>3</sup>	5.90E+6 psi	40700 MPa	
Compressive Strength			ASTM D3410
-- <sup>3</sup>	120000 psi	827 MPa	
-- <sup>4</sup>	22000 psi	152 MPa	
Shear Modulus			ASTM D5379
-- <sup>6</sup>	420000 psi	2900 MPa	
-- <sup>7</sup>	600000 psi	4140 MPa	
Shear Strength			
-- <sup>7</sup>	8900 psi	61.4 MPa	ASTM D5397
-- <sup>6</sup>	4700 psi	32.4 MPa	ASTM D5379
Poisson's Ratio <sup>8</sup>	0.30	0.30	ASTM D3410
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Glass Transition Temperature	250 °F	121 °C	ASTM D3418

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**Notes**

<sup>1</sup> Width: .400" to 8.75"  
 Thickness: .130" to .550"  
 Length: 6" to 264"

<sup>2</sup> Typical values are not to be construed as specifications.

<sup>3</sup> 0 degree orientation

<sup>4</sup> 90 degree orientation

<sup>5</sup> Strength Values developed from ASTM D790 are dependent on thickness. As thickness increased flex strength decreased. The test data above is based on a test thickness of .060"

<sup>6</sup> Inter-laminar, 2,3 direction

<sup>7</sup> In-plane, 1,2 direction

<sup>8</sup> nu12 (0/90), valid both tensile and compression

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