

Hyosung Carbon Fiber - The Number 1 High Strength Carbon Fiber in the World

Strength of Hyosung Carbon Fiber

- ① Produces own precursor - Hyosung's own Technology
- ② Fully controlled continuous process from raw material to carbon fiber
- ③ Technology development capability
- ④ Customer technical support
- ⑤ High Strength carbon fiber
- ⑥ High Translation of fiber properties



Typical Tow Properties

Fiber Type		Number of Filaments	Tensile Strength		Tensile Modulus		Elongation	Density	Filament Diameter	Yield	Sizing Level
			SI Unit	US Unit	SI Unit	US Unit					
High Strength, Standard Modulus	H2550	6000	5,516 MPa	800 Ksi	250 GPa	36.3 Msi	2.2%	1.80 g/cm ³	7.0 μm	400 g/km	1.0%
		12000	5,516 MPa	800 Ksi	250 GPa	36.3 Msi	2.2%	1.80 g/cm ³	7.0 μm	800 g/km	1.0%
		24000	5,516 MPa	800 Ksi	250 GPa	36.3 Msi	2.2%	1.80 g/cm ³	7.0 μm	1,650 g/km	1.0%
High Strength, Intermediate Modulus	H3055	12000	5,516 MPa	800 Ksi	290 GPa	42.1 Msi	1.9%	1.80 g/cm ³	6.6 μm	725 g/km	1.0%

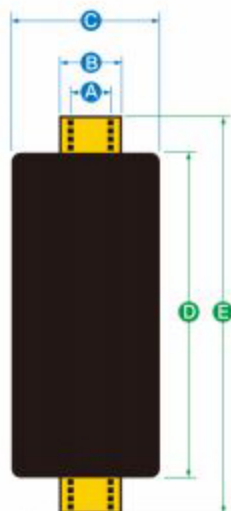
Typical Composite Properties

Fiber Type		H2550						H3055		Test Method
		6K		12K		24K		12K		
		SI Units	US Units	SI Units	US Units	SI Units	US Units	SI Units	US Units	
Tensile Properties	0° Tensile Strength	2,950 MPa	428 Ksi	2,950 MPa	428 Ksi	2,950 MPa	428 Ksi	2,950 MPa	428 Ksi	ASTM D3039
	0° Tensile Modulus	140 GPa	20.3 Msi	140 GPa	20.3 Msi	140 GPa	20.3 Msi	155 GPa	22.5 Msi	ASTM D3039
	0° Tensile Strain	2.00%		2.00%		2.00%		1.80%		ASTM D3039
Compressive Properties	0° Compressive Strength	1,450 MPa	210 Ksi	1,450 MPa	210 Ksi	1,450 MPa	210 Ksi	1,500 MPa	217 Ksi	ASTM D3410
Flexural Properties	0° Flexural Strength	1,800 MPa	261 Ksi	1,800 MPa	261 Ksi	1,800 MPa	261 Ksi	1,800 MPa	261 Ksi	ASTM D790
	0° Flexural Modulus	125 GPa	18.1 Msi	125 GPa	18.1 Msi	125 GPa	18.1 Msi	150 GPa	21.8 Msi	ASTM D790
ILSS	Strength	90 MPa	13.1 Ksi	90 MPa	13.1 Ksi	90 MPa	13.1 Ksi	90 MPa	13.1 Ksi	ASTM D2344

The above properties do not constitute any warranty or guarantees.
These values are for material selection purposes only.

Standard Packaging

Fiber Type		Number of Filaments	Spool Net Weight (kg)	Bobbin Size (mm)					Spool Per Case (kg)	Case Net Weight (kg)	Pallet Net Weight (kg)
				A	B	C	D	E			
High Strength, Standard Modulus	H2550	6000	1.0	76	84	110	250	280	12	12	360
			2.0	76	84	123	250	280	8	16	480
		12000	2.0	76	84	125	250	280	8	16	480
			4.0	76	84	154	250	280	6	24	720
			6.0	76	84	180	250	280	4	24	720
		24000	4.0	76	84	165	250	280	6	24	720
			8.0	76	84	220	250	280	80	640	640
High Strength, Intermediate Modulus	H3055	12000	2.0	76	84	131	250	280	8	16	480
			4.0	76	84	155	250	280	6	24	720



*Bobbin Size