

T700G

STANDARD MODULUS CARBON FIBER

Enhanced tensile modulus with excellent processability in traditional manufacturing methods (weaving, braiding, filament winding, prepreg, etc). Manufacturing locations include Japan, U.S., and France.

PRODUCT DESIGNATION

T700G	C	12,000	3	1	E
Fiber Type	Twist*	Filament Count	Sizing Type	Surface Treatment	Sizing Amount

* C: Never twisted

FIBER PROPERTIES

PROPERTY	ENGLISH	METRIC	METHOD
Tensile Strength	711 ksi	4,900 MPa	TY-030B-01
Tensile Modulus	34.8 Msi	240 GPa	TY-030B-01
Strain at Failure		2.0%	TY-030B-01
Density		1.80 g/cm ³	TY-030B-02
Filament Diameter		7 μm	
Yield	12K	800 g/1000m	TY-030B-03

FUNCTIONAL PROPERTIES

PROPERTY	VALUE
CTE	-0.3 α · 10 ⁻⁶ /°C
Specific Heat	0.752 J/g · °C
Thermal Conductivity	0.096 J/cm · s · °C
Electric Resistivity	1.5 x 10 ⁻³ Ω · cm
Chemical Composition: Carbon	>95%
Na + K	<50 ppm

RESIN SYSTEM COMPATIBILITY

SIZING TYPE & AMOUNT	RESIN SYSTEM COMPATIBILITY	METHOD
31E (0.5%)	Epoxy	TY-030B-05
41E (0.5%)	Epoxy	TY-030B-05
51C (1.0%)	Epoxy, phenolic, polyester, vinyl ester	TY-030B-05

COMPOSITE PROPERTIES

PROPERTY	ENGLISH	METRIC	METHOD
Tensile Strength*	296 ksi	2,040 MPa	ASTM D-3039
Tensile Modulus*	20 Msi	141 GPa	ASTM D-3039
Tensile Strain		1.40%	ASTM D-3039
Compressive Strength*	239 ksi	1,645 MPa	SACMASRM1R-94
Flexural Strength*	286 ksi	1,970 MPa	ASTM D-790
Flexural Modulus*	18 Msi	125 GPa	ASTM D-790
ILSS	15 ksi	102.1 MPa	SACMASRM1R-94
In Plain Shear Strength	19 ksi	128 MPa	ASTM D-3518
90° Tensile Strength	11 ksi	75 MPa	ASTM D-3039

*Normalized to 60% fiber volume. Cured with #2500 epoxy at 130 °C.



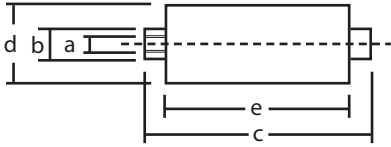
PACKAGING

The table below summarizes the tow sizes, twists, sizing types, and packaging available for standard material. Other bobbin sizes may be available on a limited basis.

TOW SIZES	BOBBIN NET WEIGHT (kg)	BOBBIN TYPE	BOBBIN SIZE (mm)					SPOOL PER CASE	CASE NET WEIGHT (kg)
			a	b	c	d	e		
12K	6.0	III	76.5	82.5	280	200	252	4	24

Bobbin Type:

Type III



Please refer to SDS for handling and disposal.

For more information or purchasing inquiries:
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