

# T700S

## STANDARD MODULUS CARBON FIBER

Excellent processability in traditional manufacturing methods (weaving, braiding, filament winding, prepreg, etc). Manufacturing locations include Japan, U.S., Korea, and France.

### PRODUCT DESIGNATION

T700S	C	12,000	5	0	C
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	33.4 Msi	230 GPa	TY-030B-01
Strain at Failure		2.1%	TY-030B-01
Density		1.80 g/cm <sup>3</sup>	TY-030B-02
Filament Diameter		7 μm	
Yield	6K	400 g/1000m	TY-030B-03
	12K	800 g/1000m	TY-030B-03
	24K	1,650 g/1000m	TY-030B-03

### FUNCTIONAL PROPERTIES

PROPERTY	VALUE
CTE	-0.38 α · 10 <sup>-6</sup> /°C
Specific Heat	0.752 J/g · °C
Thermal Conductivity	0.0938 J/cm · s · °C      0.096 J/cm · s · °C
Electric Resistivity	1.6 x 10 <sup>-3</sup> Ω · cm
Chemical Composition: Carbon	>93 %
Na + K	<50 ppm

### RESIN SYSTEM COMPATIBILITY

SIZING TYPE & AMOUNT	RESIN SYSTEM COMPATIBILITY	METHOD
50C (1.0 %)	Epoxy, phenolic, polyester, vinyl ester	TY-030B-05
60E (0.3 %)	Epoxy	TY-030B-05
F0E (0.7 %)	Vinyl ester, compatible with epoxy	TY-030B-05

### COMPOSITE PROPERTIES

PROPERTY	ENGLISH	METRIC	METHOD
Tensile Strength*	415 ksi	2,860 MPa	ASTM D-3039
Tensile Modulus*	19 Msi	134 GPa	ASTM D-3039
Tensile Strain		2.02%	ASTM D-3039
Compressive Strength*	210 ksi	1,450 MPa	SACMA SRM 1R-94
Flexural Strength*	245 ksi	1,690 MPa	ASTM D-790
Flexural Modulus*	17 Msi	120 GPa	ASTM D-790
ILSS	13 ksi	86.9 MPa	SACMA SRM 8R-94
In Plain Shear Strength	20 ksi	136 MPa	ASTM D-3518
90° Tensile Strength	12 ksi	81 MPa	ASTM D-3039

\*Normalized to 60% fiber volume. Cured with #2592 epoxy at 130 °C.



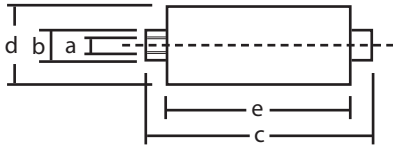
**PACKAGING**

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	SIZING	BOBBIN NET WEIGHT (kg)	BOBBIN TYPE	BOBBIN SIZE (mm)					SPOOL PER CASE	CASE NET WEIGHT (kg)
				a	b	c	d	e		
6K	50C	2.0	III	76.5	82.5	280	130	252	12	24
12K/24K	50C/60E/F0E	6.0	III	76.5	82.5	280	190	252	4	24

**Bobbin Type:**

Type III



Please refer to SDS for handling and disposal.

**For more information or purchasing inquiries:**  
[sales@toraycma.com](mailto:sales@toraycma.com) | [www.toraycma.com](http://www.toraycma.com) | 253-846-1777