

# T800S

## INTERMEDIATE MODULUS CARBON FIBER

Intermediate modulus, high tensile strength fiber, developed as a cost effective alternative to T800H. This never twisted fiber has excellent tensile composite properties and is specifically designed to meet the weight saving demand of aircraft and high performance recreational products. Excellent processability in traditional manufacturing methods (weaving, braiding, filament winding, prepreg, etc). Manufacturing locations include Japan, US, and France.

### PRODUCT DESIGNATION

T800S	C	24,000	1	0	E
Fiber Type	Twist*	Filament Count	Sizing Type	Surface Treatment	Sizing Amount

\* C: Never twisted

### FIBER PROPERTIES

PROPERTY	ENGLISH	METRIC	METHOD
Tensile Strength	853 ksi	5,880 MPa	TY-030B-01
Tensile Modulus	42.7 Msi	294 GPa	TY-030B-01
Strain at Failure		2.0%	TY-030B-01
Density		1.80 g/cm <sup>3</sup>	TY-030B-02
Filament Diameter		5 μm	
Yield	12K	515 g/1000m	TY-030B-03
	24K	1,030 g/1000m	TY-030B-03

### FUNCTIONAL PROPERTIES

PROPERTY	VALUE
CTE	-0.4 α · 10 <sup>-6</sup> /°C
Specific Heat	0.740 J/g · °C
Thermal Conductivity	0.113 J/cm · s · °C
Electric Resistivity	1.3 x 10 <sup>-3</sup> Ω · cm
Chemical Composition: Carbon	>96%
Na + K	<50 ppm

### RESIN SYSTEM COMPATIBILITY

SIZING TYPE & AMOUNT	RESIN SYSTEM COMPATIBILITY	METHOD
10E (0.5%)	Epoxy	TY-030B-05
50C (1.0%)	Epoxy, phenolic, polyester, vinyl ester	TY-030B-05

### COMPOSITE PROPERTIES

PROPERTY	ENGLISH	METRIC	METHOD
Tensile Strength*	477 ksi	3,290 MPa	ASTM D-3039
Tensile Modulus*	24 Msi	163 GPa	ASTM D-3039
Tensile Strain		1.94%	ASTM D-3039
Compressive Strength*	216 ksi	1,490 MPa	SACMASRM1R-94
Flexural Strength*	247 ksi	1,700 MPa	ASTM D-790
Flexural Modulus*	21 Msi	145 GPa	ASTM D-790
ILSS	13 ksi	87.9 MPa	SACMASRM1R-94
In Plain Shear Strength	20 ksi	135 MPa	ASTM D-3518
90° Tensile Strength	11 ksi	79 MPa	ASTM D-3039

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

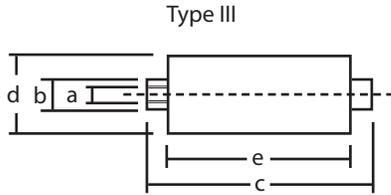


**PACKAGING**

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		
12K	50C	4.0	III	76.5	82.5	280	160	252	6	24
24K	10E	7.8	III	76.5	82.5	280	198	252	4	31.2

**Bobbin Type:**



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