

# T300J DATA SHEET

Enhanced tensile strength over T300 that translates to improved open-hole tensile strength in quasi-isotropic laminates, with increased safety margin and reliability. This fiber is commonly used in aerospace applications.

## FIBER PROPERTIES

		English	Metric	Test Method
Tensile Strength		611 ksi	4,210 MPa	TY-030B-01
Tensile Modulus		33.4 Msi	230 GPa	TY-030B-01
Strain		1.8 %	1.8 %	TY-030B-01
Density		0.064 lbs/in <sup>3</sup>	1.78 g/cm <sup>3</sup>	TY-030B-02
Filament Diameter		2.8E-04 in.	7 μm	
Yield	3K	7,523 ft/lbs	198 g/1000m	TY-030B-03
	6K	3,761 ft/lbs	396 g/1000m	TY-030B-03
	12K	1,862 ft/lbs	800 g/1000m	TY-030B-03
Sizing Type	40B		1.0 %	TY-030B-05
& Amount	50C		1.0 %	TY-030B-05
	Twist	Untwisted, Never twisted		

## FUNCTIONAL PROPERTIES

CTE	-0.43 $\alpha \cdot 10^{-6}/^{\circ}\text{C}$
Specific Heat	0.18 Cal/g $\cdot^{\circ}\text{C}$
Thermal Conductivity	0.0223 Cal/cm $\cdot\text{s}\cdot^{\circ}\text{C}$
Electric Resistivity	$1.5 \times 10^{-3} \Omega\cdot\text{cm}$
Chemical Composition: Carbon	94 %
Na + K	<50 ppm

## COMPOSITE PROPERTIES \* \*

Tensile Strength	300 ksi	2,050 MPa	ASTM D-3039
Tensile Modulus	19.5 Msi	130 GPa	ASTM D-3039
Tensile Strain	1.4 %	1.4 %	ASTM D-3039
Compressive Strength	230 ksi	1,570 MPa	ASTM D-695
Compressive Modulus	18.5 Msi	125 GPa	ASTM D-695
In-Plane Shear Strength	14 ksi	98 MPa	ASTM D-3518
ILSS	15.5 ksi	11 kgf/mm <sup>2</sup>	ASTM D-2344
90° Tensile Strength	11.5 ksi	80 MPa	ASTM D-3039

\*\* Toray Semi-Toughened 350°F Epoxy Resin. Normalized to 60% fiber volume.

See Section 4 for Safety & Handling information. The above properties do not constitute any warranty or guarantee of values.

These values are for material selection purposes only. For applications requiring guaranteed values, contact our sales and technical team to establish a material specification document.

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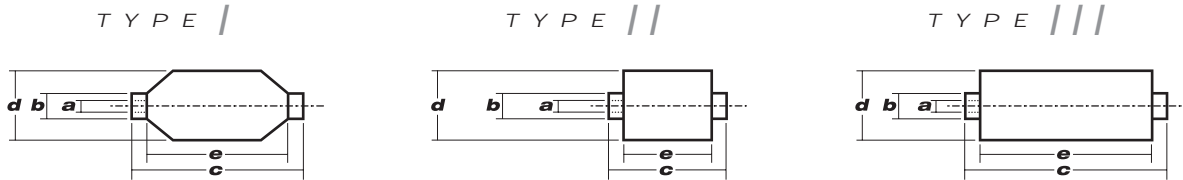
## PACKAGING

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	Twist <sup>1</sup>	Sizing	Bobbin Net Weight (kg)	Bobbin Type <sup>2</sup>	Bobbin Size (mm)					Spools per Case	Case Net Weight (kg)
					a	b	c	d	e		
3K	B	40B	2.0	//	76	82	192	157	156	12	24
6K	B	40B	2.0	//	76	82	192	157	156	12	24
12K	C	50C	4.0	///	76.5	82.5	280	170	252	6	24

<sup>1</sup> Twist    A: Twisted yarn    B: Untwisted yarn made from a twisted yarn through an untwisting process    C: Never twisted yarn

<sup>2</sup> Bobbin Type    See Diagram below



TORAY CARBON FIBERS AMERICA, INC.

6 Hutton Centre Drive, Suite #1270, Santa Ana, CA 92707 TEL: (714) 431-2320 FAX: (714) 424-0750

Sales@Toraycfa.com Technical@Toraycfa.com www.torayusa.com