

TORAYCA™ M60J High Modulus Carbon Fiber Data Sheet



Toray Composite Materials America, Inc.

PRODUCT NOTES

M60J carbon fiber is an MJ-type high modulus fiber with enhanced tensile and compressive strength as compared to M series fibers. Manufactured in Japan.

PRODUCT DESIGNATION

FIBER TYPE	TWIST	FILAMENT COUNT	SIZING TYPE	SURFACE TREATMENT	SIZING AMOUNT
M60J	B*	6,000	5	0	B

* B: Untwisted

FIBER PROPERTIES

PROPERTY	ENGLISH	METRIC	METHOD
Tensile Strength	554 Ksi	3,820 MPa	TY-030B-01
Tensile Modulus	85.3 Msi	588 GPa	TY-030B-01
Strain at Failure		0.7%	TY-030B-01
Density		1.93 g/cm ³	TY-030B-02
Filament Diameter		5 μm	
Yield	3K	103 g/1000m	TY-030B-03
	6K	206 g/1000m	TY-030B-03

FUNCTIONAL PROPERTIES

PROPERTY	VALUE
CTE	-1.1 α · 10 ⁻⁶ /°C
Specific Heat	0.732 J/g ·°C
Thermal Conductivity	1.505 J/cm ·s·°C
Electric Resistivity	0.7 x 10 ⁻³ Ω·cm
Chemical Composition: Carbon	>99%
Na + K	<50 ppm

RESIN SYSTEM COMPATIBILITY

SIZING TYPE & AMOUNT	RESIN SYSTEM COMPATIBILITY	METHOD
50B (1.5 %)	Epoxy, phenolic, polyester, vinyl ester	TY-030B-05

COMPOSITE PROPERTIES

PROPERTY	ENGLISH	METRIC	METHOD
Tensile Strength*	292 Ksi	2,010 MPa	ASTM D3039
Tensile Modulus*	52 Msi	360 GPa	ASTM D3039
Tensile Strain		0.55%	ASTM D3039
Compressive Strength*	115 Ksi	790 MPa	SACMASRM1R-94
Flexural Strength*	155 Ksi	1,070 MPa	ASTM D790
Flexural Modulus*	44 Msi	301 GPa	ASTM D790
ILSS	10 Ksi	70.3 MPa	SACMASRM8R-94
In Plain Shear Strength	8 Ksi	55 MPa	ASTM D3518
90° Tensile Strength	5 Ksi	34 MPa	ASTM D3039

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

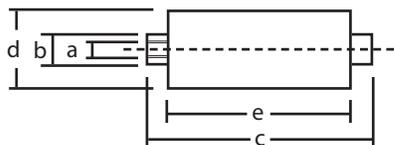
PACKAGING

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		
3K	0.25	II	76	82	192	94	156	20	5
6K	0.4	II	76	82	192	103	156	20	8

Bobbin Type:

Type II



Please refer to SDS for handling and disposal.

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