

T1100G

INTERMEDIATE MODULUS CARBON FIBER

Next-generation intermediate modulus fiber with excellent processability in traditional manufacturing methods (weaving, prepreg, etc). Manufactured in the U.S.

PRODUCT DESIGNATION

| T1100G | C | 12,000 | 7 | 1 | E |
|------------|--------|----------------|-------------|-------------------|---------------|
| Fiber Type | Twist* | Filament Count | Sizing Type | Surface Treatment | Sizing Amount |

*C: Never Twisted

FIBER PROPERTIES

| PROPERTY | ENGLISH | METRIC | METHOD |
|-------------------|-----------|------------------------|------------|
| Tensile Strength | 1,017 Ksi | 7,000 MPa | TY-030B-01 |
| Tensile Modulus | 47.0 Msi | 324 GPa | TY-030B-01 |
| Strain at Failure | | 2.0% | TY-030B-01 |
| Density | | 1.79 g/cm ³ | TY-030B-02 |
| Filament Diameter | | 5 μm | |
| Yield | 12K | 505 g/1000m | TY-030B-03 |
| | 24K | 1,010 g /1000m | TY-030B-03 |

FUNCTIONAL PROPERTIES

| PROPERTY | VALUE |
|------------------------------|-------------------------------|
| CTE | -0.5 α · 10 ⁻⁶ /°C |
| Specific Heat | 0.748 J/g · °C |
| Thermal Conductivity | 0.130 J/cm · s · °C |
| Electric Resistivity | 1.4 x 10 ⁻³ Ω · cm |
| Chemical Composition: Carbon | >96% |
| Na + K | <50 ppm |

RESIN SYSTEM COMPATIBILITY

| SIZING TYPE & AMOUNT | RESIN SYSTEM COMPATIBILITY | METHOD |
|----------------------|---|------------|
| 71E (0.6%) | Epoxy, phenolic, polyester, vinyl ester | TY-030B-05 |

COMPOSITE PROPERTIES

| PROPERTY | ENGLISH | METRIC | METHOD |
|-------------------------|---------|-----------|---------------|
| Tensile Strength* | 502 Ksi | 3,460 MPa | ASTM D-3039 |
| Tensile Modulus* | 27 Msi | 185 GPa | ASTM D-3039 |
| Tensile Strain | | 1.82% | ASTM D-3039 |
| Compressive Strength* | 271 Ksi | 1,870 MPa | SACMASRM1R-94 |
| Flexural Strength* | 278 Ksi | 1,920 MPa | ASTM D-790 |
| Flexural Modulus* | 23 Msi | 159 GPa | ASTM D-790 |
| ILSS | 15 Ksi | 104.5 MPa | SACMASRM1R-94 |
| In Plain Shear Strength | 23 Ksi | 160 MPa | ASTM D3518 |
| 90° Tensile Strength | 12 Ksi | 80 MPa | ASTM D-3039 |

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



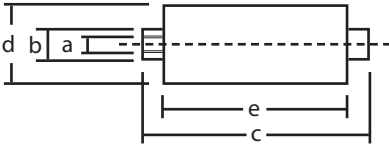
PACKAGING

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 | 2.0 | III | 76.5 | 82.5 | 280 | 130 | 252 | 12 | 24 |
| 24K | 4.0 | III | 76.5 | 82.5 | 280 | 160 | 252 | 6 | 24 |

Bobbin Type:

Type III



Please refer to SDS for handling and disposal.

For more information or purchasing inquiries:
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