

Offering enhanced tensile strength and modulus compared to the T300 Series, Torayca™ T400H fiber is particularly suitable for aerospace secondary structure applications such as empennage and nacelles. Manufactured in Japan.

PRODUCT DESIGNATION

| T400H | B | 3 000 | 4 | 0 | A |
|------------|--------|----------------|-------------|-------------------|---------------|
| Fiber Type | Twist* | Filament Count | Sizing Type | Surface Treatment | Sizing Amount |

*Blank: Twisted
B: Untwisted

RESIN SYSTEM COMPATIBILITY

| SIZING TYPE & AMOUNT | RESIN SYSTEM COMPATIBILITY | METHOD |
|----------------------|----------------------------|-----------|
| 40A / 40B (1%) | Epoxy, phenolic, BMI | TY-QA-005 |
| 40D (0.7%) | Epoxy, phenolic, BMI | TY-QA-005 |

FIBER PROPERTIES

| PROPERTY | UNIT | FILAMENT COUNT | NOMINAL VALUE* | METHOD |
|------------------|--|----------------|----------------|-----------|
| Tensile Strength | MPa (kgf/mm ²) | | 4410 (450) | TY-QA-002 |
| Tensile Modulus | GPa (10 ³ kgf/mm ²) | | 250 (25.5) | TY-QA-002 |
| Elongation | % | | 1.8 | TY-QA-002 |
| Density | g/cm ³ | | 1.80 | TY-QA-003 |
| Yield | g/1000m | 3 000 | 198 | TY-QA-004 |
| | | 6 000 | 396 | |

* Lot properties are reported as average values of a test set per bobbin sampled. The stated values are typical values. For design purposes, please contact us.

FUNCTIONAL PROPERTIES

| PROPERTY | UNIT | FILAMENT COUNT | NOMINAL VALUE |
|----------------------|-------------------------|----------------|---------------|
| Specific Heat | Cal/g.°C | | 0.18 |
| Electric Resistivity | x 10 ⁻³ Ω.cm | | 1.6 |
| CTE | α10 ⁻⁶ /°C | | -0.45 |
| Thermal Conductivity | Cal/cm.S.°C | | 0.0252 |
| Filament Diameter | μm | | 7 |
| Cross Sectional Area | mm ² | 3 000 | 0.11 |
| | | 6 000 | 0.22 |

COMPOSITE PROPERTIES*

| PROPERTY | UNIT | NOMINAL VALUE |
|----------------------|--|---------------|
| Tensile Strength | MPa (kgf/mm ²) | 2250 (230) |
| Tensile Modulus | GPa (10 ³ kgf/mm ²) | 140 (14.5) |
| Tensile Strain | % | 1.45 |
| Compressive Strength | MPa (kgf/mm ²) | 1570 (160) |
| Flexural Modulus | GPa (10 ³ kgf/mm ²) | 135 (14.0) |
| ILSS | MPa (kgf/mm ²) | 110 (11) |

* Toray 3631 – 180°C resin system. Measured temperature: RT. Normalized to 60% fiber volume.

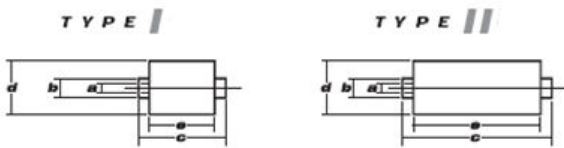
PACKAGING

Each bobbin of TORAYCA carbon fibre is protected against dust and packed in container to prevent damage during transportation

The table below summarizes the tow sizes 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 | 2.0 | I | 76 | 82 | 192 | 157 | 156 | 12 | 24 |
| 6K | 2.0 | I | 76 | 82 | 192 | 157 | 156 | 12 | 24 |

BOBBIN TYPE:



Please refer to SDS for handling and disposal.

REQUIREMENTS

Shelf Life: 24 months from month of manufacture, if stored under ambient condition

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