

## PRODUCT DATA SHEET

### DESCRIPTION

Toray Cetex® TC960 is a polypropylene-based thermoplastic uni-directional tape. It is part of the Toray CFRT® (continuous fiber reinforced thermoplastic) line of industrial thermoplastic composites. This thermoplastic composite is designed for applications that require high impact resistance, but where cost is a factor. The impact toughness of glass fiber/polypropylene composites make them ideal for use in truck bodies, vehicles, and vehicle enclosures.

### FEATURES

- ▶ Good toughness
- ▶ Good chemical and solvent resistance
- ▶ Lightweight
- ▶ Easily formable
- ▶ Impact resistant



### PRODUCT TYPE

Polypropylene Thermoplastic Composite

### TYPICAL APPLICATIONS

- ▶ Truck bodies
- ▶ Under the hood fairings

### SHELF LIFE

Indefinite at 25°C (77°F)

### TYPICAL NEAT RESIN PROPERTIES

|                              |                       |
|------------------------------|-----------------------|
| Density                      | 0.9 g/cc              |
| Melt Temperature             | 160°C (320°F)         |
| Tensile Strength             | 32 MPa (4.7 ksi)      |
| Tensile Modulus              | 0.9 GPa (0.13 Msi)    |
| Elongation, Ultimate         | 100%                  |
| Izod Impact Strength Notched | 48 J/m (0.9 ft-lb/in) |
| Hardness Shore D             | 69                    |
| Heat Deflection Temperature  | 116°C (241°F)         |
| UL94 rating                  | HB                    |



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### MECHANICAL PROPERTIES

| Property                | Condition | Method      | Typical Results |         |
|-------------------------|-----------|-------------|-----------------|---------|
| Tensile Strength 0°     | RTD       | ASTM D 3039 | 750 MPa         | 109 ksi |
| Tensile Modulus 0°      | RTD       | ASTM D 3039 | 27.8 GPa        | 4.0 Msi |
| Flexural Strength 0°    | RTD       | ASTM D 790  | 643 MPa         | 93 ksi  |
| Flexural Modulus 0°     | RTD       | ASTM D 790  | 28.2 GPa        | 4.1 Msi |
| Compressive Strength 0° | RTD       | ASTM D 3410 | 136 MPa         | 20 ksi  |
| Short Beam Shear ILSS   | RTD       | ASTM D 2344 | 9.8 MPa         | 2.9 ksi |

**Toray Cetex® TC960 Fiberglass Fiber PP Unitape**

Resin content by weight at 40%. Composite density 1.49 g/cm<sup>3</sup>. Tape width 164 mm (6.5"). Tape thickness 0.27 mm (0.011"). Recommended processing temperature is 199–216°C (390–420°F)

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