

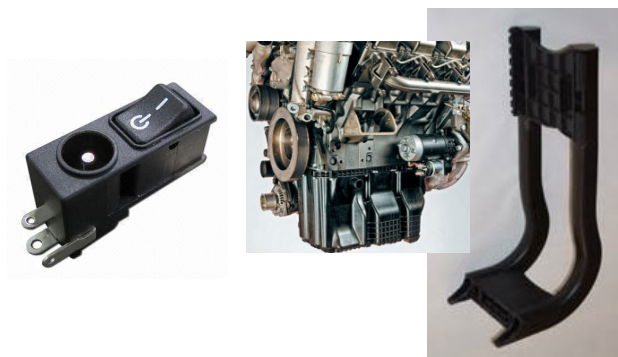
PRODUCT DATA SHEET

DESCRIPTION

Toray Cetex® TC910 is a thermoplastic composite using a polyamide 6 (PA6) matrix resin. This product provides excellent mechanical performance at a good price-to-weight ratio. It features high strength and wear resistance and performs well at elevated temperatures. TC910 is also resistant to solvents. As a result of these attributes, Toray Cetex® TC910 is commonly used in a variety of automotive and transportation applications. Secondary details in the final part may be injection overmolded using injection-grade polyamides. Toray Cetex® TC910 is available in glass or carbon reinforced UD tapes.

FEATURES

- ▶ Good resistance to solvents
- ▶ Excellent balance of strength and impact resistance
- ▶ Moldable and formable
- ▶ Excellent temperature resistance and strength makes it ideal for housings and under the hood applications
- ▶ Excellent impact and solvent resistance
- ▶ Good elevated temperature resistance



PRODUCT TYPE

Nylon 6-based Thermoplastic Composite

TYPICAL NEAT RESIN PROPERTIES

Heat Deflection Temperature	200°C (392°F)
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TYPICAL APPLICATIONS

- ▶ Automotive structure
- ▶ Under the hood applications
- ▶ Replacement for highly loaded injection molded parts

SHELF LIFE

Indefinite at 25°C (77°F)



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PRODUCT DATA SHEET

MECHANICAL PROPERTIES

Property	Condition	Method	Typical Results	
Tensile Strength 0°	RTD	ASTM D 3039	900 MPa	131 ksi
Tensile Modulus 0°	RTD	ASTM D 3039	30 GPa	4.4 Msi
Flexural Strength 0°	RTD	ASTM D 790	1050 MPa	152 ksi
Flexural Modulus 0°	RTD	ASTM D 790	29 GPa	4.2 Msi
Compressive Strength 0°	RTD	ASTM D 3410	345 MPa	50 ksi
Short Beam Shear ILSS	RTD	ASTM D 2344	42 MPa	6.1 ksi

Toray Cetex® TC910 Nylon 6 Fiberglass Uni-directional Tape
 Resin content by weight at 40%. Composite density 1.73 g/cm³.
 Tape width 166 mm (6.5"). Tape thickness 0.25 mm (0.010").
 Recommended processing temperature is 249–271°C (480–520°F)

MECHANICAL PROPERTIES

Property	Condition	Method	Typical Results	
Tensile Strength 0°	RTD	ASTM D 3039	1900 MPa	276 ksi
Tensile Modulus 0°	RTD	ASTM D 3039	100 GPa	14.5 Msi
Flexural Strength 0°	RTD	ASTM D 790	950 MPa	138 ksi
Flexural Modulus 0°	RTD	ASTM D 790	97 GPa	14.1 Msi
Compressive Strength 0°	RTD	ASTM D 3410	375 MPa	54 ksi
Short Beam Shear ILSS	RTD	ASTM D 2344	43 MPa	6.2 ksi

Toray Cetex® TC910 Nylon 6 Carbon Fiber Uni-directional Tape
 Resin content by weight at 40%. Composite density 1.45 g/cm³.
 Tape width 166 mm (6.5"). Tape thickness 0.16 mm (0.007").
 Recommended processing temperature is 249–271°C (480–520°F)

Revised 07/2019

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