

PRODUCT DATA SHEET

DESCRIPTION

Toray PMC CFRT® TC920 is a high-impact strength polycarbonate/ABS blend designed for consumer electronics. It features a high-quality surface finish, is easily formable to the desired shape ranging from computer cases to smart phone cases. Intricate details can be easily overmolded for clips and brackets using injection grade PC/ABS. It is an amorphous polymer that can be easily painted or bonded. It is UL94 V0 rated. It is offered on unidirectional carbon fiber, glass fiber, or carbon fabrics for good fire resistance.

FEATURES

- › Ambient temperature storage
- › Excellent impact resistance
- › UL-94 V0 rated without secondary fire retardants (halogen free)
- › Meets EPEAT-R-Phase criteria flame retardant plastic composition

TYPICAL APPLICATIONS

- › Computer cases and enclosures
- › Cell phone cases
- › Hand held consumer electronics

NEAT RESIN DATA

Density (Specific Gravity)	1.2 g/cc
T _g (glass transition)	70-75°C (158-167°F)
T _m (melt)	250°C (482°F)
T _p (processing)	225 ± 10°C (437 ± 10°F)

SHELF LIFE

- › Indefinite at 25°C (77°F)

MECHANICAL PROPERTIES: FIBERGLASS FIBER PC/ABS UNIDIRECTIONAL TAPE

Property	Condition	Method	Results	
Tensile Strength, 0°	RTD	ASTM D3039	88 ksi	610 MPa
Tensile Modulus, 0°	RTD	ASTM D3039	4.9 Msi	33.8 GPa
Flexural Strength	RTD	ASTM D790	143 ksi	985 MPa
Flexural Modulus	RTD	ASTM D790	5.0 Msi	34.4 GPa
Compressive Strength 0°	RTD	ASTM D3410	31 ksi	212 MPa
Short Beam Shear ILSS	RTD	ASTM D2344	3.4 ksi	24 MPa

*Resin content by weight at 40%. Composite Density 1.73 g/cm³
Tape Width 168 mm (6.6 inches). Tape Thickness 0.19 mm (0.007 inches).*

MECHANICAL PROPERTIES: CARBON FIBER PC/ABS UNIDIRECTIONAL TAPE

Property	Condition	Method	Results	
Tensile Strength, 0°	RTD	ASTM D3039	196 ksi	1351 MPa
Tensile Modulus, 0°	RTD	ASTM D3039	14.4 Msi	99.4 GPa
Flexural Strength	RTD	ASTM D790	158 ksi	1088 MPa
Flexural Modulus	RTD	ASTM D790	12.7 Msi	87.9 GPa
Compressive Strength 0°	RTD	ASTM D3410	39 ksi	268 MPa
Short Beam Shear ILSS	RTD	ASTM D2344	3.7 ksi	25.8 MPa

*Resin content by weight at 45%. Composite Density 1.46 g/cm³
Tape Width 168 mm (6.6 inches). Tape Thickness 0.13 mm (0.005 inches).*

Toray(Polycarbonate/ABS)_DS_v1_2019-09-10

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