

# TECHNICAL DATA



TENCATE ADVANCED COMPOSITES

## TenCate Cetex<sup>®</sup> TC940 PET Thermoplastic Composite

### PRODUCT TYPE

Engineered Polyester  
Thermoplastic Composite

### TYPICAL APPLICATIONS

- Recreational equipment

### FEATURES

- Excellent clarity and toughness
- Good overall strength

### HEAT DISTORTION TEMPERATURE

Approximately 175°F/79°C

### SHELF LIFE

Indefinite at 77°F/25°C

Revised 01/2014

*Cetex<sup>®</sup> and CFRT<sup>™</sup> are registered trademarks of Royal TenCate. All data given is based on representative samples of the materials in question. Since the method and circumstances under which these materials are processed and tested are key to their performance, and TenCate Advanced Composites USA, Inc. has no assurance of how its customers will use the material, the corporation cannot guarantee these properties.*

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### PRODUCT DESCRIPTION

TenCate Cetex<sup>®</sup> TC940 PET (formerly PMC/Baycomp CFRT<sup>™</sup> PET) is a high strength polyethylene terephthalate (PET) semicrystalline polyester thermoplastic unidirectional tape. This TenCate thermoplastic composites is designed for applications in recreational equipment as a result of its high impact strength and low cost.

### TENCATE CETEX TC940 PET PRODUCT BENEFITS/FEATURES

- Good toughness
- Good chemical and solvent resistance
- Lightweight
- UL94 flammability rating HB



### TENCATE CETEX TC940 PET FIBERGLASS UNITAPE

Resin content by weight at 40%. Composite Density 1.89 g/cm<sup>3</sup>.  
Tape Width 166 mm (6.5 inches). Tape Thickness 0.26 mm (0.010 inches).

Property	Condition	Method	Results	
Tensile Strength 0°	RTD	ASTM D3039	139 ksi	960 MPa
Tensile Modulus 0°	RTD	ASTM D3039	4.6 Msi	32.0 GPa
Flexural Strength	RTD	ASTM D790	176 ksi	1215 MPa
Flexural Modulus	RTD	ASTM D790	4.7 Msi	32.2 GPa
Compressive Strength 0°	RTD	ASTM D3410	48 ksi	329 MPa
Short Beam Shear ILSS	RTD	ASTM D2344	6.0 ksi	41 MPa

Recommended Processing Temperature is 490-530°F (254-277°C)

### TENCATE CETEX TC940 PET CARBON FIBER UNITAPE

Resin content by weight at 50%. Composite Density 1.53 g/cm<sup>3</sup>.  
Tape Width 166 mm (6.5 inches). Tape Thickness 0.25 mm (0.010 inches).

Property	Condition	Method	Results	
Tensile Strength 0°	RTD	ASTM D3039	184 ksi	1272 MPa
Tensile Modulus 0°	RTD	ASTM D3039	13.7 Msi	94.2 GPa
Flexural Strength	RTD	ASTM D790	120 ksi	825 MPa
Flexural Modulus	RTD	ASTM D790	11.6 Msi	80.2 GPa
Compressive Strength 0°	RTD	ASTM D3410	39 ksi	271 MPa
Short Beam Shear ILSS	RTD	ASTM D2344	5.2 ksi	35.8 MPa

Recommended Processing Temperature is 490-530°F (254-277°C)

## TENCATE PERFORMANCE COMPOSITES

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