

TECHNICAL DATA



TENCATE ADVANCED COMPOSITES

TenCate Cetex® TC1220 PEEK Thermoplastic Unidirectional Tape

PRODUCT TYPE

PEEK Thermoplastic Unidirectional Tape

FEATURES

- Outstanding compression after impact performance
- Excellent impact resistance
- Fully impregnated low void content tapes

TYPICAL APPLICATIONS

- Primary Aircraft Structure
- Secondary Aircraft Structure
- Access Panels, Rib Stiffeners, Brackets, Conduit, Flooring

Tg 290°F (143°C)

Tm 649°F (343°C)

SHELF LIFE

Indefinite at 77°F/25°C

Revised 02/2013

Cetex® is a registered trademark 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.

Page 1 of 1

CETEX-TC1220_DS_021413

PRODUCT DESCRIPTION

TenCate Cetex TC1220 is a high CAI strength PEEK thermoplastic unidirectional tape. It offers excellent resistance to solvents, high impact strength and structural properties. TenCate Cetex TC1220 is also flame retardant and is offered as a unitape with AS4D and intermediate modulus, IM7, carbon fiber.

TENCATE CETEX TC1220 PRODUCT BENEFITS/FEATURES

- **Outstanding compression after impact strength: 50 ksi/345 MPa**
- Low moisture absorption for good hot/wet strength retention
- Robust processing and low void content unitapes
- Offered in 6 or 12 inch tape widths
- Excellent structural properties

TENCATE CETEX TC1220 PEEK, AS4D, 146 gsm FAW, 34% RESIN CONTENT

The data below represents limited lot data.

Property	Condition	Method	Results	
Tensile Strength 0°	RTD	ASTM D3039	348 ksi	2399.4 MPa
Tensile Modulus 0°	RTD	ASTM D3039	21.1 Msi	145.5 GPa
Compressive Strength 0°	RTD	ASTM D695	187 ksi	1289.3 MPa
Compressive Modulus 0°	RTD	ASTM D695	18.1 Msi	124.8 GPa
In Plane Shear Strength	RTD	ASTM D3846	20.9 ksi	144.1 MPa
In Plane Shear Modulus	RTD	ASTM D3846	0.64 Msi	4.4 GPa
Flexural Strength 90°	RTD	ASTM D790	23.7 ksi	163.4 MPa
Open Hole Comp. Strength	RTD	ASTM D6742	44.8 ksi	308.9 MPa
Compression After Impact after 270 in-lb impact (30.5J)	RTD	ASTM D7137	50 ksi	344.7 MPa

TENCATE CETEX TC1220 PEEK, IM7, 146 gsm FAW, 34% RESIN CONTENT

The data below represents limited lot data.

Property	Condition	Method	Results	
Tensile Strength 0°	RTD	ASTM D 3039	379 ksi	2613.1 MPa
Tensile Modulus 0°	RTD	ASTM D 3039	21.7 Msi	149.6 GPa
Compressive Strength 0°/90°	RTD	ASTM D6641	85.2 ksi	587.4 MPa
Compressive Modulus 0°	RTD	ASTM D6641	9.5 Msi	65.5 GPa
Flexural Strength 0°	RTD	ASTM D790	214 ksi	1475.5 MPa
Flexural Modulus 0°	RTD	ASTM D790	14.7 Msi	101.4 GPa
Flexural Strength 90°	RTD	ASTM D790	24.2 ksi	166.9 MPa
Flexural Modulus 90°	RTD	ASTM D790	1.3 Msi	9.0 GPa
0°/90° Short Beam Shear	RTD	ASTM D2344	13.9 ksi	95.8 MPa
Compression After Impact after 270 in-lb impact (30.5J)	RTD	ASTM D 7137	53 ksi	365.4 MPa

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