

# CoreLite® PET FR

## Product Data Sheet

Last Revised: November 8, 2021

CoreLite® PET FR is a closed-cell PET foam specially formulated to deliver excellent fire performance. This foam core has outstanding fire-retardant and self-extinguishing properties. Engineered to meet rigorous fire safety demands in a variety of applications. It can achieve HL3 certification when combined with phenolic or aluminum skins. This foam core is halogen-free.

Resistance to fatigue is superior, as well as its chemical stability and UV resistance. Water absorption is minimal. CoreLite® PET FR can handle processing temperatures up to 150 °C (302 °F) . During high temperature processing it is thermally stable and no outgassing or expansion after post-cure occurs. In the event of fire, no toxic gases are generated.

## PROCESSING

- Prepreg processing
- Resin infusion / injection (VARTM / RTM)
- Adhesive bonding
- Vacuum infusion
- Thermo-formable
- Hand Lay-up and Spray-up
- Compression molding (GMT, SMC)

## APPLICATIONS

**Marine:** Hulls, Decks, Superstructures, Bulkheads, Interiors and Stringers

**Wind Energy:** Blades (shear webs & shells), Nacelles

**Transportation:** Primary Body Structure, Interior Structure, Sidewalls, Floors and Ceilings

**Construction:** Roof Panels, Support Wall Insulation and Door Laminate

**Industrial:** Covers, Containers, Local Reinforcements, X-ray tables, Sporting goods



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# CoreLite® PET FR

## Mechanical Properties for CoreLite® PET FR

TEST STANDARDS		Units (Imperial)	65	100	150
Nominal Density	ISO 845	Lbs. / cu.ft	4.1	6.2	9.5
Compressive Strength	ISO 844	psi	115	220	335
Compressive Modulus	ISO 844	psi	5800	10150	15225
Tensile Strength	ASTM C297	psi	230	350	420
Tensile Modulus	ASTM C297	psi	8700	15225	23200
Shear Strength	ISO 1922	psi	80	115	190
Shear Modulus	ISO 1922	psi	2030	2900	5800
Shear elongation at break	ISO 1922	%	20	15	8
Standard Sheet (Plain)	Length	inch	62.99	56.50	78.74
	Width	inch	45.28	40.75	36.22
	Thickness	inch	1/8 to 2 ¾	1/8 to 2 ½	1/8 to 2 ¼

Values shown are nominal average determined from independent laboratory and house testing. Tests are perpendicular to the plane.

Color:	Green	Green	Green
Density Tolerance:	+ / - 10%		
Water absorption	< 1%		
Processing temperature:	302 °F		

**Disclaimer:** The information and data presented herein are subject to revision. CoreLite reserves the right to release replacement data. The data presented is derived from in house and independent testing. Calculations should be verified with physical test. The data is provided without liability to CoreLite or its agents and does not constitute warranty or representation in respect to the material or its use. To be used for information only.

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## Mechanical Properties for CoreLite® PET FR

TEST STANDARDS		Units (metric)	65	100	150
Nominal Density	ISO 845	Kg. / m <sup>3</sup>	65	100	150
Compressive Strength	ISO 844	MPa	0,8	1,5	2,3
Compressive Modulus	ISO 844	MPa	40	70	105
Tensile Strength	ASTM C297	MPa	1,6	2,4	2,9
Tensile Modulus	ASTM C297	MPa	60	105	160
Shear Strength	ISO 1922	MPa	0,6	0,8	1,3
Shear Modulus	ISO 1922	MPa	14	20	40
Shear elongation at break	ISO 1922	%	20	15	8
Standard Sheet (Plain)	Length	mm	2400	2150	2000
	Width	mm	1120	1005	920
	Thickness	mm	3 to 78	3 to 75	3 to 70

Values shown are nominal average determined from independent laboratory and house testing. Tests are perpendicular to the plane.

Color:	Green	Green	Green
Density Tolerance:	+ / - 10%		
Water absorption	< 1%		
Processing temperature:	150 °C		

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inspired by **possibilities**,  
powered by **nature**,  
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we are proud to make the most  
**sustainable** core material on earth.

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