CoreLite® PVC F

Product Data Sheet

Last Revised: June 01, 2020

CoreLite® PVC F is a closed-cell foam core material engineered for high toughness and tremendous impact resistance, delivering unmatched performance in shock absorbing structures. CoreLite® PVC F series has excellent shear elongation properties. It is cold formable and also thermoformable. Compatible with multiple resins and adhesives.

It has a very low water absorption rate and excellent chemical resistance. Ideal for many high performance, lightweight composite applications.

PROCESSING

- Hand lamination / spray lay-up
- Vacuum infusion
- · Resin injection
- Adhesive bonding
- Pre-preg processing
- Thermoforming

APPLICATIONS

Marine: hulls (bottom and side), decking, bulkheads, superstructures

Transportation: ceilings, doors, interiors, partition walls, sidewalls

Wind energy: rotor blades, nacelles, covers, casings

Aerospace: cargo containers

Industrial: covers, containers, tanks, sporting goods, tooling and molds



CoreLite® PVC F

Mechanical Properties for CoreLite® PVC F						
TEST STANDARDS		Units (Imperial)	60	80	100	130
Nominal Density	ISO 845	Lbs. / cu.ft	3.75	5	6.24	8.12
Compressive Strength	ISO 844	psi	112	190	247	351
Compressive Modulus	ISO 844	psi	8412	13198	14939	21756
Tensile Strength	ASTM D1623	psi	210	265	290	455
Tensile Modulus	ASTM D1623	psi	7542	10008	12618	17550
Shear Strength	ISO 1922	psi	112	154	232	289
Shear Modulus	ISO 1922	psi	2756	3626	5656	6817
Shear elongation at break	ISO 1922	%	39	51	49	52
Standard Sheet (Plain)	Length	inch	62.99	56.50	52.36	48.03
	Width	inch	45.28	40.75	37.80	34.65
	Thickness	inch	1/8 to 2 ¾	1/8 to 2 ½	1/8 to 2 1/4	1/8 to 2 1/4

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

Color:	Yellow	Yellow	Yellow	Yellow	
Density Tolerance:	+ / - 10%				
Water absorption	< 1%				
Processing temperature:	176 °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.



CoreLite® PVC F

Mechanical Properties for CoreLite® PVC F						
TEST STANDARDS		Units (metric)	60	80	100	130
Nominal Density	ISO 845	Kg. / m ³	60	80	100	130
Compressive Strength	ISO 844	MPa	0,77	1,31	1,70	2,42
Compressive Modulus	ISO 844	MPa	58	91	103	150
Tensile Strength	ASTM D1623	MPa	1,45	1,83	2,00	3,14
Tensile Modulus	ASTM D1623	MPa	52	69	87	121
Shear Strength	ISO 1922	MPa	0,77	1,06	1,60	1,99
Shear Modulus	ISO 1922	MPa	19	25	39	47
Shear elongation at break	ISO 1922	%	39	51	49	52
Standard Sheet (Plain)	Length	mm	1600	1435	1330	1220
	Width	mm	1150	1035	960	880
	Thickness	mm	3 to 76	3 to 68	3 to 62	3 to 57

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

Color:	Yellow	Yellow	Yellow	Yellow	
Density Tolerance:	+ / - 10%				
Water absorption	< 1%				
Processing temperature:	80 °C				

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