

CoreLite® PVC

Product Data Sheet

Last Revised: December 14, 2015

CoreLite® PVC is a closed-cell, cross-linked polymer PVC foam formulated for durability, strength, and high processing temperatures. It is compatible with multiple resins and adhesives.

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

PROCESSING

- Hand lamination / spray lay-up
- Vacuum infusion
- Resin injection
- Adhesive bonding
- Pre-preg processing (up to 80 °C, 176 °F)
- Thermoforming



APPLICATIONS

Marine: hulls, decking, bulkheads, interiors superstructures

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

Wind energy: rotor blades, covers, casings

Aerospace: fuselage and wind components, kitchen trolleys, galleys

Industrial: Covers, Containers, Tanks, Sporting goods, Tooling and Molds

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CoreLite® PVC

Mechanical Properties for CoreLite® PVC

TEST STANDARDS		Units (metric)	48	60	80	100	130
Density	ASTM D1622	Kg. / m ³	48	60	80	100	130
Compressive Strength	ASTM D1621-10	MPa	0,69	0,96	1,43	1,93	2,73
Compressive Modulus	ASTM D1621-10	MPa	33	0,46	68	90	125
Tensile Strength	ASTM D1623	MPa	0,95	2,11	2,60	3,08	3,81
Tensile Modulus	ASTM D1623	MPa	87	106	137	169	216
Shear Strength	ASTM C273	MPa	0,55	0,77	1,13	1,49	2,03
Shear Modulus	ASTM C273	MPa	16	21	29	37	49
Shear elongation at break	ASTM C273	%	9	13	20	25	32
Thermal conductivity at 24 °C	ASTM C-177	W/m.K	0.031	0.031	0.033	0.035	0.039
Standard Sheet (Plain)	Length	mm	2730	2450	2180	2050	1900
	Width	mm	1270	1150	1020	950	850
	Thickness	mm	3 to 70	3 to 70	3 to 70	3 to 64	3 to 51

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

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

Disclaimer: The information and data presented herein are subject to revision. CoreLite Inc. 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, Inc. or its agents and does not constitute warranty or representation in respect to the material or its use.

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Mechanical Properties for CoreLite® PVC

TEST STANDARDS		Units (Imperial)	48	60	80	100	130
Density	ASTM D1622	Lbs. / cu.ft	3	3.75	5	6.24	8.12
Compressive Strength	ASTM D1621-10	psi	100	139	207	280	396
Compressive Modulus	ASTM D1621-10	psi	4786	6672	9862	13053	18130
Tensile Strength	ASTM D1623	psi	138	306	377	447	553
Tensile Modulus	ASTM D1623	psi	12618	15374	19870	24511	31328
Shear Strength	ASTM C273	psi	80	112	164	216	294
Shear Modulus	ASTM C273	psi	2321	3046	4206	5366	7107
Shear elongation at break	ASTM C273	%	9	13	20	25	32
Thermal conductivity at 75 °F	ASTM C-177	BTU.in/ft2.hr.°F	0.21	0.21	0.23	0.24	0.27
Standard Sheet (Plain)	Length	inch	107.48	96.45	85.83	80.71	74.80
	Width	inch	50	45.27	40.16	37.40	33.47
	Thickness	inch	1/8 to 2 3/4	1/8 to 2 3/4	1/8 to 2 3/4	1/8 to 2 1/2	1/8 to 2

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

Color:	Purple	Yellow	Green	Pink	Blue
Density Tolerance:	+ / - 10%				
Water absorption	< 1%				
Processing temperature:	176 °F				

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