

CoreLite® PVC

Product Data Sheet

Last Revised: December 18, 2020

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 (Imperial)	40	48	60	80	100	130	200	250
Density	ASTM D1622	Lbs. / cu.ft	2.5	3	3.75	5	6.24	8.12	12.5	15.7
Compressive Strength	ASTM D1621-10	psi	75	90	142	232	297	467	735	998
Compressive Modulus	ASTM D1621-10	psi	5366	6382	9718	14069	17550	26542	43511	55695
Tensile Strength	ASTM D1623	psi	103	142	264	397	461	631	908	1043
Tensile Modulus	ASTM D1623	psi	9863	10298	14504	21321	23496	32924	51924	63672
Shear Strength	ASTM C273	psi	68	75	115	174	215	354	499	634
Shear Modulus	ASTM C273	psi	2176	2321	3046	4351	5221	7977	11168	14214
Shear elongation at break	ASTM C273	%	6	7	18	19	25	32	35	35
Thermal conductivity at 75 °F	ASTM C-177	BTU.in/ft2.hr.°F	0.21	0.21	0.21	0.23	0.24	0.27	0.33	0.39
Standard Sheet (Plain)	Length	inch	112.20	107.48	96.45	85.83	80.71	74.80	62.99	59.06
	Width	inch	52.36	50.00	45.27	40.16	37.40	33.47	29.53	27.56
	Thickness	inch	1/8 to 3 ¼	1/8 to 2 ¾	1/8 to 2 ¾	1/8 to 2 ¾	1/8 to 2 ½	1/8 to 2	1/8 to 1 ¾	1/8 to 1 ¾

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

Color:	Light Blue	Purple	Yellow	Green	Pink	Blue	Brown	Dark Green
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.

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Mechanical Properties for CoreLite® PVC

TEST STANDARDS		Units (Metric)	40	48	60	80	100	130	200	250
Density	ASTM D1622	Kg. / m³	40	48	60	80	100	130	200	250
Compressive Strength	ASTM D1621-10	MPa	0,52	0,62	0,98	1,60	2,05	3,22	5,07	6,88
Compressive Modulus	ASTM D1621-10	MPa	37	44	67	97	121	183	300	384
Tensile Strength	ASTM D1623	MPa	0,71	0,98	1,82	2,74	3,18	4,35	6,26	7,19
Tensile Modulus	ASTM D1623	MPa	68	71	100	146	162	227	358	439
Shear Strength	ASTM C273	MPa	0,47	0,52	0,79	1,20	1,48	2,44	3,44	4,37
Shear Modulus	ASTM C273	MPa	15	16	21	30	36	55	77	98
Shear elongation at break	ASTM C273	%	6	7	18	19	25	32	35	35
Thermal conductivity at 24 °C	ASTM C-177	W/m.K	0,031	0,031	0,031	0,033	0,035	0,039	0,048	0,056
Standard Sheet (Plain)	Length	mm	2850	2730	2450	2180	2050	1900	1600	1500
	Width	mm	1330	1270	1150	1020	950	850	750	700
	Thickness	mm	3 to 80	3 to 70	3 to 70	3 to 70	3 to 64	3 to 51	3 to 45	3 to 45

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

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

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we are proud to make the most
sustainable core material on earth.

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