CoreLite[®] PVC HT

Product Data Sheet

Last Revised: December 10, 2020

CoreLite[®] PVC HT (High Temperature) is a closed-cell, cross-linked polymer PVC foam formulated for resistance to high temperatures, durability, rigidity and strength. 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 that will be exposed to high temperatures.

PROCESSING

- Hand lamination / spray lay-up
- Vacuum infusion
- Resin injection
- Adhesive bonding
- Pre-preg processing (up to 140 °C, 285 °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 HT

Mechanical Properties for CoreLite® PVC HT						
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	146	236	348	426
Compressive Modulus	ISO 844	psi	9427	13924	23206	30023
Tensile Strength	ASTM D1623	psi	287	412	468	558
Tensile Modulus	ASTM D1623	psi	14069	20015	19290	24076
Shear Strength	ISO 1922	psi	125	183	251	336
Shear Modulus	ISO 1922	psi	3046	4206	6672	8557
Shear elongation at break	ISO 1922	%	29	32	29	24
Standard Sheet (Plain)	Length	inch	62.99	56.50	78.74	72.83
	Width	inch	45.28	40.75	36.22	35.43
	Thickness	inch	1/8 to 2 3/4	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:	Pink	Yellow	Yellow	Yellow	
Density Tolerance:	+ / - 10%				
Water absorption	< 1%				
Processing temperature:	285 °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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CoreLite[®] PVC HT

Mechanical Properties for CoreLite [®] PVC HT						
TEST STANDARDS		Units (metric)	60	80	100	130
Nominal Density	ISO 845	Kg. / m³	60	80	100	130
Compressive Strength	ISO 844	MPa	1,01	1,63	2,40	2,94
Compressive Modulus	ISO 844	MPa	65	96	160	207
Tensile Strength	ASTM D1623	MPa	1,98	2,84	3,23	3,85
Tensile Modulus	ASTM D1623	MPa	97	138	133	166
Shear Strength	ISO 1922	MPa	0,86	1,26	1,73	2,32
Shear Modulus	ISO 1922	MPa	21	29	46	59
Shear elongation at break	ISO 1922	%	29	32	29	24
Standard Sheet (Plain)	Length	mm	2400	2150	2000	1850
	Width	mm	1120	1005	920	900
	Thickness	mm	3 to 78	3 to 75	3 to 70	3 to 50

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

Color:	Pink	Yellow	Yellow	Yellow	
Density Tolerance:	+ / - 10%				
Water absorption	< 1%				
Processing temperature:	140 °C				

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