



Product Technical Data

(Metric Version)
Thermo-Lite Board®

6 mm Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	kg/m^3		Low (416)	Med (576)	High(640)	608	640
Tensile	Strength, MPa	ASTM D 1037	12.2	15.0	15.2	46.7	56.9
	Modulus, MPa		587	765	779	2199	2813
Flexure	Strength, MPa	ASTM C 393	22.8	30.7	31.3	37.4	52.5
	Modulus, MPa		1661	1993	2013	3544	4185
Compression	Strength, MPa @2.5% Strain	ASTM D 1621	4.16	7.17	8.34	4.54	5.12
	Modulus, MPa		169	283	328	183	203

Standard sheet sizes up to 1525 X 3658 mm

Standard sheet sizes up to 1525 X 3050 mm

9 mm Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	kg/m^3		Low (384)	Med (480)	High(576)	544	544
Tensile	Strength, MPa	ASTM D 1037	13.4	14.8	15.0	14.3	14.3
	Modulus, MPa		689	772	765	731	731
Flexure	Strength, MPa	ASTM C 393	23.0	26.6	30.7	27.5	27.5
	Modulus, MPa		1613	1765	1993	1834	1834
Compression	Strength, MPa @2.5% Strain	ASTM D 1621	4.46	6.27	7.17	7.45	7.45
	Modulus, MPa		181	249	283	294	294

Standard sheet sizes up to 1525 X 3658 mm

Standard sheet sizes up to 1525 X 3050 mm

12 mm Thickness

Thermo-Lite Board® Series			Versatile			Tough-Lite	Tough	Supreme
Nominal Density	kg/m^3		Low (240)	Med (384)	High(480)	320	448	448
Tensile	Strength, MPa	ASTM D 1037	8.4	13.4	14.8	21.2	37.3	46.0
	Modulus, MPa		549.1	689	772	1354	1765	2310
Flexure	Strength, MPa	ASTM C 393	10.2	23.0	26.6	24.7	32.9	47.0
	Modulus, MPa		876.7	1613	1765	2621.1	3144	3806
Compression	Strength, MPa @2.5% Strain	ASTM D 1621	1.65	4.46	6.27	2.0	3.33	3.61
	Modulus, MPa		67.28	181	249	83.86	138	147

Standard sheet sizes up to:1525 X 3658 mm

1220 X 2440 mm

1525 X 3050 mm

19 mm Thickness

Thermo-Lite Board® Series			Versatile			Tough-Lite	Tough	Supreme
Nominal Density	kg/m^3		Low (208)	Med (384)	High(480)	288	416	416
Tensile	Strength, MPa	ASTM D 1037	7.6	14.5	15.9	14.0	30.6	37.5
	Modulus, MPa		463.5	779	862	779.0	1537	1993
Flexure	Strength, MPa	ASTM C 393	11.6	22.5	26.1	19.0	29.6	42.5
	Modulus, MPa		1096.9	1538	1689	1931.7	2806	3475
Compression	Strength, MPa @2.5% Strain	ASTM D 1621	1.49	4.46	6.27	2.09	3.33	3.71
	Modulus, MPa		63.79	181	249	97.55	138	150

Standard sheet sizes up to:1525 X 3658 mm

1220 X 2440 mm

1525 X 3050 mm

25 mm Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	kg/m ³		Low (288)	Med (352)	High(480)	416	416
Tensile	Strength, MPa	ASTM D 1037	13.6	15.2	16.9	24.4	29.4
	Modulus, MPa		744	841	951	1351	1717
Flexure	Strength, MPa	ASTM C 393	16.4	20.8	25.6	26.5	38.3
	Modulus, MPa		1241	1413	1620	2468	3151
Compression	Strength, MPa @2.5% Strain	ASTM D 1621	2.65	3.86	6.27	3.63	4.06
	Modulus, MPa		113	159	249	149	163

Standard sheet sizes up to 1525 X 3658 mm

Standard sheet sizes up to 1525 X 3050 mm

38 mm Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	kg/m ³		Low (288)	Med (352)	High(480)	384	384
Tensile	Strength, MPa	ASTM D 1037	15.7	17.2	19.0	11.5	13.3
	Modulus, MPa		923	1020	1131	930	1158
Flexure	Strength, MPa	ASTM C 393	15.5	19.7	24.5	20.2	29.9
	Modulus, MPa		1089	1269	1469	1792	2510
Compression	Strength, MPa @2.5% Strain	ASTM D 1621	2.65	3.86	6.27	3.33	4.41
	Modulus, MPa		113	159	249	138	177

Standard sheet sizes up to 1220 X 2440

Standard sheet sizes up to 1220 X 3050 mm

50 mm Thickness

Thermo-Lite Board® Series			Versatile		
Nominal Density	kg/m ³		Low (288)	Med (352)	High(480)
Tensile	Strength, MPa	ASTM D 1037	17.8	19.4	21.1
	Modulus, MPa		1103	1200	1310
Flexure	Strength, MPa	ASTM C 393	14.4	18.7	23.5
	Modulus, MPa		944	1124	1324
Compression	Strength, MPa @2.5% Strain	ASTM D 1621	2.65	3.86	6.27
	Modulus, MPa		113	159	249

Standard sheet sizes up to 1220 X 2440

Strength - the maximum load (N) that can be carried per unit area (mm²) of cross section. One MPa is equivalent to one Newton of force being applied to a strip of material that is one millimeter by one millimeter cross section.

Modulus - the stress (MPa) that would have to be applied to theoretically stretch a material to twice its original length. Modulus can be viewed as the stiffness of the material because, as modulus increases, so does the stiffness.

SpaceAge Synthetics Tolerances

Sanded Surfaces	Thickness	Side A	Side B
0	+/- 1.5mm	E-skin or Natural	E-Skin or Natural
1	+/- 1mm	E-skin or Natural	Sanded
2	+/- .05mm	Sanded	Sanded

*Fascoat Boards are targeted to have an additional +.05mm tolerance to the pre-coated panel tolerance. All boards: Density +/- 32kg/m³ and Dimensional +/- 1.5875mm.

Electric Safety Testing: Thermo-Lite Board® Versatile Series 3/4" have passed ASTM D 149-09, Method A testing up to **24,000 volts AC**.

Thermo-Lite Board® is self extinguishing (when heat source is removed, the flame goes out.) The material conforms to **UL-94HB** as well as **Federal Motor Vehicle Safety Standard 302** for flammability. **European Standard FMVS: EC Type Approval No. 95/28/EC**.

Thermal Resistance (R-Value) is typically 0.21K-m²/W for 12.7mm, 0.39K-m²/W for 25.4mm, and 0.70K-m²/W for 50.8mm thicknesses.

Water Absorption ASTM D2842
Less than 1%.

The testing data outlined in this document is represented by a predictive model and is an estimation based on a curve fitting to available data. Please speak with one of our knowledgeable Sales Representatives for further details.



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This updated and expanded technical data supersedes all previous documents used to represent the mechanical properties of Thermo-Lite Board®. In no way should this data be viewed or portrayed as providing exact properties, nor should it be used as actual properties for design purposes. This data is provided in good faith, and gives approximate values for the nominal density. The information contained herein is believed to be correct and corresponds to the latest state of scientific and technical knowledge. Additional testing provided upon request. Assessment of suitability is the responsibility of end user.