

THERMO-LITE BOARD® is a unique coled sell, lightweight composite product, manufactured with cross-linked polymer foam and fiberglass that offers high specific strength and toughness.

The non-absorbent material is extremely durable, provides an excellent bonding surface, has good impact strength, with both sound and thermal insulation, and is resistant to contamination.

Offered in sheets or CNC Pre-cut kits Thermo-Lite Board is built for lifetime performance, and is ideal for endless coring applications subjected to static and dynamic loads.

the testing data outlined in this document is represented by predictive model and is estimated based on a curve fitting to available data

## 6mm Thickness

Thermo-Lite Series			Versatile			Tough	Supreme
Nominal Density	Kg/m3		Low(416)	Med(576)	High(640)	608	640
Tensile	Strength, Mpa	ASTM D 1037	12.2	15	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
	Strength, Mpa		169	283	328	183	203

## 12.7m Thickness

Thermo-Lite Series			Versatile			Tough-Lite	Tough	Supreme
Nominal Density	Kg/m3		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
	Modulus, Mpa		549.1	689	772	1654	1765	2310
Flexure	Strength, Mpa	ASTM C 393	10.2	23	26.6	24.7	32.9	47
	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	3.33	3.61
	Strength, Mpa		67.28	181	249	83.86	138	147

## 19m Thickness

Thermo-Lite Series			Versatile			Tough-Lite	Tough	Supreme
Nominal Density	Kg/m3		Low(208)	Med(384)	High(480)	288	416	416
Tensile	Strength, Mpa	ASTM D 1037	7.6	14.5	15.9	14	30.6	37.5
	Modulus, Mpa		463.5	779	862	779	1537	1993
Flexure	Strength, Mpa	ASTM C 393	11.6	22.5	26.1	19	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
	Strength, Mpa		63.79	181	249	97.55	138	150

## 25m Thickness

Thermo-Lite Series			Versatile			Tough	Supreme
Nominal Density	Kg/m3		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
	Strength, Mpa		113	159	249	149	163

## 38mm Thickness

Thermo-Lite Series			Versatile			Tough	Supreme
Nominal Density	Kg/m3		Low(288)	Med(352)	High(480)	384	384
Tensile	Strength, Mpa	ASTM D 1037	15.7	17.2	19	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
	Strength, Mpa		113	159	249	138	177

## 50mm Thickness

Thermo-Lite Series			Versatile		
Nominal Density	Kg/m3		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
	Strength, Mpa		113	159	249

**Strength** - the maximum load (N) that can be carried per unit area (mm<sup>2</sup>) of cross section. one MPa is equivalent to one newton of force being applied to a strip of material that is 1mm x 1mm 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 material because, as modulus increases, so does stiffness.

Thermo-Lite Board is self extinguishing (when the heat source is removed) the material conforms to

UL-94HB as well as Federal Motor Vehical safety standard 302 for flammability.

European Standard

FMVS:EC Type Approval No. 95/28/EC

Thermal Resistance (R-Value) is typically 0.21K0m<sup>2</sup>/W for 12.7mm, 0.39K-m<sup>2</sup>/W for 25.4mm and 0.70K-m<sup>2</sup>/w for 50.8mm thickness

Water Absorbtion ASTM D2842  
less then 1%

