



# Product Technical Data

(Metric Version)  
Thermo-Lite Board®

SpaceAge Synthetics' Thermo-Lite Board® is a unique closed cell, **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, sound and thermal insulation, and is resistant to contamination.

Offered in sheets or cut into parts, our material is built for **lifetime performance**, and is ideal for endless coring applications subjected to static and dynamic loads.

Our products are manufactured by skilled employees under a Quality Management System that is registered to ISO 9001:2008. This ensures the products and services you receive from SpaceAge Synthetics meet the highest approved international standards.

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 or Engineers for further details.

## 6 mm Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	kg/m <sup>3</sup>		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		
Flexure	Strength, MPa	ASTM C 393	22.8	30.7	31.3	37.4	52.5
	Modulus, MPa		1661	1993	2013		
Compression	Strength, MPa @2.5% Strain	ASTM D 1621	4.16	7.17	8.34	4.54	5.12
	Modulus, MPa		169	283	328		

Standard sheet sizes up to 1525 X 4880 mm

Standard sheet sizes up to 1525 X 3050 mm

## 12 mm Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	kg/m <sup>3</sup>		Low (320)	Med (384)	High(480)	448	448
Tensile	Strength, MPa	ASTM D 1037	11.9	13.4	14.8	37.3	46.0
	Modulus, MPa		595	689	772		
Flexure	Strength, MPa	ASTM C 393	18.7	23.0	26.6	32.9	47.0
	Modulus, MPa		1434	1613	1765		
Compression	Strength, Mpa @2.5% Strain	ASTM D 1621	3.26	4.46	6.27	3.33	3.61
	Modulus, MPa		135	181	249		

Standard sheet sizes up to 1525 X 4880 mm

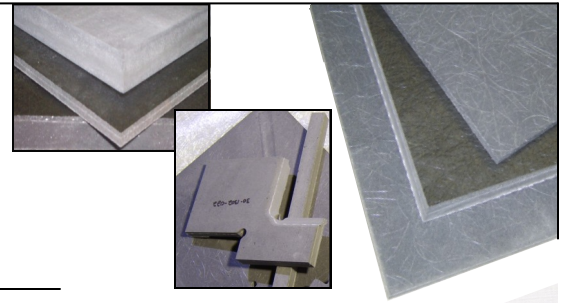
Standard sheet sizes up to 1525 X 3050 mm

## 19 mm Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	kg/m <sup>3</sup>		Low (288)	Med (384)	High(480)	416	416
Tensile	Strength, MPa	ASTM D 1037	12.5	14.5	15.9	30.6	37.5
	Modulus, MPa		657	779	862		
Flexure	Strength, MPa	ASTM C 393	17	22.5	26.1	29.6	42.5
	Modulus, MPa		1310	1538	1689		
Compression	Strength, Mpa @2.5% Strain	ASTM D 1621	2.65	4.46	6.27	3.33	3.71
	Modulus, MPa		113	181	249		

Standard sheet sizes up to 1525 X 4880 mm

Standard sheet sizes up to 1525 X 3050 mm



**25 mm Thickness**

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	kg/m <sup>3</sup>		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 4880 mm

Standard sheet sizes up to 1525 X 3050 mm

**38 mm Thickness**

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	kg/m <sup>3</sup>		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 mm

Standard sheet sizes up to 1220 X 3050 mm

**50 mm Thickness**

Thermo-Lite Board® Series			Versatile		
Nominal Density	kg/m <sup>3</sup>		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 mm

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·m<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 thicknesses.

**Water Absorption** ASTM D2842  
Less than 1%.

**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 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.