



# Product Technical Data

## 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.

### 0.25" Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	lb/ft <sup>3</sup>		Low (26)	Med (36)	High (40)	38	40
Tensile	Strength, psi	ASTM D 1037	1770	2180	2210	6770	8250
	Modulus, psi		85200	111000	113000	319000	408000
Flexure	Strength, psi	ASTM C 393	3320	4450	4540	5430	7610
	Modulus, psi		241000	289000	292000	514000	607000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	604	1040	1210	658	742
	Modulus, psi		24600	41000	47600	26600	29500

Standard sheet sizes up to 5' X 14'

Standard sheet sizes up to 5' X 10'

### 0.50" Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	lb/ft <sup>3</sup>		Low (20)	Med (24)	High (30)	28	28
Tensile	Strength, psi	ASTM D 1037	1730	1950	2140	5420	6670
	Modulus, psi		86300	100000	112000	256000	335000
Flexure	Strength, psi	ASTM C 393	2720	3330	3860	4780	6810
	Modulus, psi		208000	234000	256000	456000	552000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	473	647	909	484	523
	Modulus, psi		19700	26200	36100	20100	21300

Standard sheet sizes up to 5' X 14'

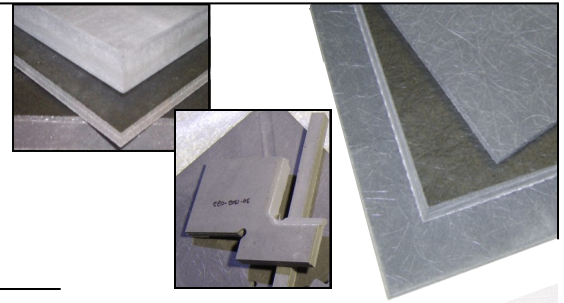
Standard sheet sizes up to 5' X 10'

### 0.75" Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	lb/ft <sup>3</sup>		Low (18)	Med (24)	High (30)	26	26
Tensile	Strength, psi	ASTM D 1037	1820	2110	2300	4450	5440
	Modulus, psi		95300	113000	125000	223000	289000
Flexure	Strength, psi	ASTM C 393	2470	3260	3780	4300	6160
	Modulus, psi		190000	223000	245000	407000	504000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	385	647	909	484	538
	Modulus, psi		16400	26200	36100	20100	21800

Standard sheet sizes up to 5' X 14'

Standard sheet sizes up to 5' X 10'



### 1" Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	lb/ft <sup>3</sup>		Low (18)	Med (22)	High (30)	26	26
Tensile	Strength, psi	ASTM D 1037	1980	2200	2450	3550	4270
	Modulus, psi		108000	122000	138000	196000	249000
Flexure	Strength, psi	ASTM C 393	2390	3010	3710	3850	5550
	Modulus, psi		180000	205000	235000	358000	457000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	385	560	909	527	589
	Modulus, psi		16400	23000	36100	21700	23700

Standard sheet sizes up to 5' X 14'

Standard sheet sizes up to 5' X 10'

### 1.50" Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	lb/ft <sup>3</sup>		Low (18)	Med (22)	High (30)	24	24
Tensile	Strength, psi	ASTM D 1037	2280	2500	2750	1670	1930
	Modulus, psi		134000	148000	164000	135000	168000
Flexure	Strength, psi	ASTM C 393	2250	2860	3560	2930	4330
	Modulus, psi		158000	184000	213000	260000	364000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	385	560	909	484	640
	Modulus, psi		16400	23000	36100	20100	25600

Standard sheet sizes up to 4' X 8'

Standard sheet sizes up to 4' X 10'

### 2" Thickness

Thermo-Lite Board® Series			Versatile		
Nominal Density	lb/ft <sup>3</sup>		Low (18)	Med (22)	High (30)
Tensile	Strength, psi	ASTM D 1037	2590	2810	3060
	Modulus, psi		160000	174000	190000
Flexure	Strength, psi	ASTM C 393	2100	2710	3410
	Modulus, psi		137000	163000	192000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	385	560	909
	Modulus, psi		16400	23000	36100

Standard sheet sizes up to 4' X 8'

**Strength** - the maximum load (lb) that can be carried per unit area (in<sup>2</sup>) of cross section. One psi is equivalent to one pound of force being applied to a strip of material that has a one inch by one inch cross section.

**Modulus** - the stress (lb/in<sup>2</sup>) 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.

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 1.2 for .50", 2.2 for 1", and 4 for 2" thicknesses.

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