

ISO 9001:2000 Registered

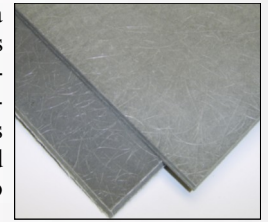
SpaceAge Synthetics' Thermo-Lite Board® is a unique closed cell, **lightweight** composite product, manufactured with cross-linked polymer foam and fiberglass, that offers high specific strength and **toughness**.

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 9001:2000. 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 (28)	Med (36)	High (42)	38	40
Tensile	Strength, psi	ASTM D 1037	1930	2180	2370	6770	8250
	Modulus, psi		95100	111000	123000	319000	408000
Flexure	Strength, psi	ASTM C 393	3750	4450	4980	5430	7610
	Modulus, psi		259000	289000	311000	514000	607000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	691	1040	1300	658	742
	Modulus, psi		27900	41000	50900	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 (18)	Med (24)	High (30)	26	28
Tensile	Strength, psi	ASTM D 1037	1770	1950	2140	5450	6670
	Modulus, psi		88300	100000	112000	259000	335000
Flexure	Strength, psi	ASTM C 393	2810	3330	3860	4790	6810
	Modulus, psi		212000	234000	256000	457000	552000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	385	647	909	396	523
	Modulus, psi		16400	26200	36100	16800	21300

Standard sheet sizes up to 5' X 14'

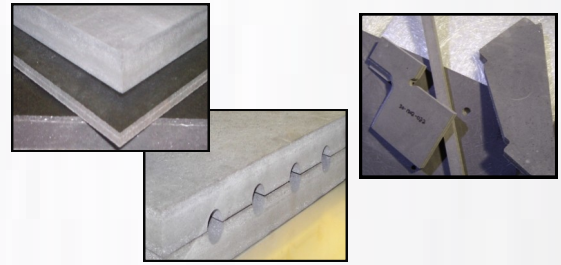
Standard sheet sizes up to 5' X 10'

### 0.75" Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	lb/ft <sup>3</sup>		Low (16)	Med (24)	High (30)	24	26
Tensile	Strength, psi	ASTM D 1037	1860	2110	2300	4480	5440
	Modulus, psi		97300	113000	125000	226000	289000
Flexure	Strength, psi	ASTM C 393	2560	3260	3780	4310	6160
	Modulus, psi		194000	223000	245000	407000	504000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	298	647	909	396	538
	Modulus, psi		13100	26200	36100	16800	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 (14)	Med (22)	High (30)	22	26
Tensile	Strength, psi	ASTM D 1037	1940	2200	2450	3510	4270
	Modulus, psi		106000	122000	138000	193000	249000
Flexure	Strength, psi	ASTM C 393	2310	3010	3710	3840	5550
	Modulus, psi		176000	205000	235000	358000	457000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	211	560	909	353	589
	Modulus, psi		9810	23000	36100	15100	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 (12)	Med (22)	High (30)	22	24
Tensile	Strength, psi	ASTM D 1037	2190	2500	2750	1700	1930
	Modulus, psi		128000	148000	164000	138000	168000
Flexure	Strength, psi	ASTM C 393	1980	2860	3560	2950	4330
	Modulus, psi		148000	184000	213000	261000	364000
Compression	Strength, psi	ASTM D 1621	123	560	909	396	640
	Modulus, psi		6520	23000	36100	16800	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 (12)	Med (22)	High (30)
Tensile	Strength, psi	ASTM D 1037	2490	2810	3060
	Modulus, psi		154000	174000	190000
Flexure	Strength, psi	ASTM C 393	1840	2710	3410
	Modulus, psi		126000	163000	192000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	123	560	909
	Modulus, psi		6520	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.

**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%.

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.