



Product Technical Data

Thermo-Lite Board®

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**

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**.

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%.

0.25" Thickness

Thermo-Lite Board® Series			Versatile	Tough	Supreme
Nominal Density	lb/ft ³		32	38	40
Tensile	Strength, psi	ASTM D 1037	1960	6660	8150
	Modulus, psi		97100	311000	400000
Flexure	Strength, psi	ASTM C 393	3840	5380	7570
	Modulus, psi		263000	512000	605000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	866	658	742
	Modulus, psi		34500	26600	29500

Standard sheet sizes up to 5' X 12'

Standard sheet sizes up to 5' X 10'

0.50" Thickness

Thermo-Lite Board® Series			Versatile			Tough-Lite	Tough	Supreme
Nominal Density	lb/ft ³		15	20	24	20	28	28
Tensile	Strength, psi	ASTM D 1037	1230	1730	1860	3085	5420	6570
	Modulus, psi		79625	86300	94200	196330	256000	327000
Flexure	Strength, psi	ASTM C 393	1482	2720	3070	3584	4780	6760
	Modulus, psi		127123	208000	223000	380065	456000	550000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	240	473	647	296	484	523
	Modulus, psi		9756	19700	26200	12161	20100	21300

Standard sheet sizes up to: 5' X 12'

4' X 8

5' X 10'

0.75" Thickness

Thermo-Lite Board® Series			Versatile			Tough-Lite	Tough	Supreme
Nominal Density	lb/ft ³		13	20	24	18	26	26
Tensile	Strength, psi	ASTM D 1037	1107	1890	2010	2038	4450	5330
	Modulus, psi		67211	99300	107000	112968	223000	281000
Flexure	Strength, psi	ASTM C 393	1691	2640	2990	2757	4300	6110
	Modulus, psi		159063	198000	212000	280106	407000	502000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	217	473	647	304	484	538
	Modulus, psi		9250	19700	26200	14146	20100	21800

Standard sheet sizes up to: 5' X 12'

4' X 8'

5' X 10'

1" Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	lb/ft ³		20	24	30	26	26
Tensile	Strength, psi	ASTM D 1037	2040	2170	2350	3550	4170
	Modulus, psi		112000	120000	132000	196000	241000
Flexure	Strength, psi	ASTM C 393	2570	2920	3440	3850	5500
	Modulus, psi		187000	202000	224000	358000	455000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	473	647	909	527	589
	Modulus, psi		19700	26200	36100	21700	23700

Standard sheet sizes up to 5' X 12'

Standard sheet sizes up to 4' X 10'

1.50" Thickness

Thermo-Lite Board® Series			Versatile			Tough	Supreme
Nominal Density	lb/ft ³		20	24	30	24	24
Tensile	Strength, psi	ASTM D 1037	2340	2470	2660	1670	1760
	Modulus, psi		138000	146000	158000	135000	155000
Flexure	Strength, psi	ASTM C 393	2420	2770	3300	2930	4250
	Modulus, psi		166000	180000	202000	260000	360000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	473	647	909	484	553
	Modulus, psi		19700	26200	36100	20100	22400

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 ³		20	24	30
Tensile	Strength, psi	ASTM D 1037	2650	2780	2960
	Modulus, psi		164000	172000	184000
Flexure	Strength, psi	ASTM C 393	2270	2620	3150
	Modulus, psi		144000	159000	181000
Compression	Strength, psi @2.5% Strain	ASTM D 1621	473	647	909
	Modulus, psi		19700	26200	36100

Standard sheet sizes up to 4' X 8'

Strength - the maximum load (lb) that can be carried per unit area (in²) 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/in²) 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	+/- 0.060"	E-skin or Natural	E-Skin or Natural
1	+/- 0.040"	E-skin or Natural	Sanded
2	+/- 0.020"	Sanded	Sanded

*FASCOAT Boards are targeted to have an additional + 0.020" tolerance to the pre-coated panel tolerance. All boards: Density +/- 2lb/ft³ and Dimensional +/- 1/16 (.0625)".

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.



SpaceAge Synthetics, Ltd.
 1402 39th Street NW
 Fargo, ND 58102 USA
 Tel: 701.277.5631
 Fax: 701.277.5689
 www.spaceagesynthetics.com

ISO 9001
Quality

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.