



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.