

Physical Properties of SilveRboard®

| | | Product Designation | | | | |
|---------------|--|--|--|--|--|--|
| Standard | Description | SB-12 | SB-21 | SB-35 | SB-44 | SB-35XS |
| ASTM D1622 | Density lb/ft ³ Density Kg/m ³ | 1.0 lb/ft ³ 16.0 Kg/m ³ | 1.5 lb/ft ³ 24.0 Kg/m ³ | 2.0 lb/ft ³ 32.0 Kg/m ³ | 2.5 lb/ft ³ 40.0 Kg/m ³ | 2.0 lb/ft ³ 32.0 Kg/m ³ |
| ASTM C518 | R-Value/1-inch @ 75°F RSI/25mm @ 24°C | 4.1 ft ² •h•°F/BTU 0.72 (m ² •°K/W) | 4.3 ft ² •h•°F/BTU 0.76 (m ² •°K/W) | 5.0 ft ² •h•°F/BTU 0.88 (m ² •°K/W) | 5.0 ft ² •h•°F/BTU 0.88 (m ² •°K/W) | 5.0 ft ² •h•°F/BTU 0.88 (m ² •°K/W) |
| ASTM STP1320 | R-Value/1-inch @ 0°F RSI/25mm @ -18°C | 5.2 ft ² •h•°F/BTU 0.91 (m ² •°K/W) | 5.5 ft ² •h•°F/BTU 0.96 (m ² •°K/W) | 6.0 ft ² •h•°F/BTU 1.05 (m ² •°K/W) | 6.0 ft ² •h•°F/BTU 1.05 (m ² •°K/W) | 6.0 ft ² •h•°F/BTU 1.05 (m ² •°K/W) |
| ASTM D1621 | Compressive strength at 10% strain | 12.8 psi (88.2 kPa) | 21.5 psi (147.9 kPa) | 35.6 psi (245.5 kPa) | 44.4 psi (306.1 kPa) | 35.6 psi (245.5 kPa) |
| ASTM C203 | Flexural strength | 40.0 psi (277.0 kPa) | 60.0 psi (414.0 kPa) | 84.0 psi (579.0 kPa) | 106.0 psi (730.0 kPa) | 84.0 psi (579.0 kPa) |
| ASTM D2842 | Water absorption (% by volume) | 0.85% | 0.68% | 0.43% | 0.075% | 0.43% |
| ASTM E96 | Water vapor permeance | 12 ng/Pa.s.m ² (0.21 perm) | 8.6 ng/Pa.s.m ² (0.15 perm) | 4.27 ng/Pa.s.m ² (0.075 perm) | 1.6 ng/Pa.s.m ² (0.028 perm) | 217 ng/Pa.s.m ² (3.48 perm) |
| ASTM D2126 | Dimensional Stability Linear change | -0.147% | -0.108% | -0.1% | -0.1% | -0.1% |
| ASTM D2863 | Limiting Oxygen Index | >24% | >24% | >24% | >24% | >24% |
| ASTM E2178-11 | Standard test Method for Air Permeance of Building Materials | | | | | 0.01 L/s.m ² @ 75 pa * |

* 2010 NBC section 9.25.5.1 requirement for Air Barrier System (air leakage characteristics) less than 0.1L/s.m² @75 Pa.

Surface Burning Characteristics of SilveRboard® in accordance with CAN/ULC-S102.2

| Material Details | | Classification or Rating | |
|------------------|-----------------|--------------------------|-----------------|
| Thickness (mm) | Density (Kg/m3) | Flame Spread Index | Smoke Developed |
| 25-100 | 16 | 225 | 475 |
| 25 | 24 | 240 | 290 |
| 50 | 24 | 200 | 380 |
| 75 | 24 | 205 | 495 |
| 100 | 24 | 175 | over 500 |
| 25 | 32 | 220 | 265 |
| 50 | 32 | 180 | 450 |
| 75 | 32 | 165 | over 500 |
| 100 | 32 | 135 | 500 |
| 25 - 75 | 40 | 210 | over 500 |
| | | | |

Surface Burning Characteristics of SilveRboard® in accordance with ASTM E84 (UL 723)

| Density | 1.0 to 1.5 pcf | 2.0 pcf |
|--------------------|---------------------|---------------------|
| Thickness | 0.5-inch to 4-inch+ | 0.5-inch to 4-inch+ |
| Flame Spread Index | 15 # | 0# |
| Smoke Developed | 150-300 # | 30 # |

#Flame spread and smoke developed recorded while material remained in the original test position.