

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.