

# SilveRboard Graphite Insulation



## REFLECTIVE INSULATION

SilveRboard Graphite is a high performance, non-structural, rigid insulation board made from closed cell Expanded Polystyrene (EPS) with a layer of reflective metalized polypropylene film lamination on both sides. The EPS core is embedded with graphite particles changing the color from white to gray, greatly increasing the thermal resistance. Designed to be installed as continuous insulation to reduce thermal bridging in the building envelope. SilveRboard Graphite can be used in both new and retrofit applications.



QAI Listing B1061-3

## Alleguard Advantage

- Stable long term thermal resistance.
- Increased thermal resistance in lower temperatures.
- Micro perforated film on both sides provides high vapor permeance and allows moisture to dry (SBGXS only).
- Functions as a vapor barrier when sealed and taped with an approved vapor barrier tape (SBG only).
- Double sided film lamination creates flexible boards which are ideal for radius walls and turrets.
- Does not promote growth of mold and mildew.
- No off-gassing and does not contain HFCs, CFCs or HCFCs.
- Each panel is easy to handle due to the low weight and can be easily cut.

**Physical Properties Table**

	Standard	Units	SBGXS	SBG
Specification for Rigid Polystyrene Insulation	ASTM C578		Type I	Type I
	CAN/ULC-S701		Type 1	Type 1
Thermal Resistance <sup>1</sup>	ASTM C518	F.ft <sup>2</sup> .hr/Btu	4.7	4.7
	@ 75°F (24°C)	(m <sup>2</sup> K/W)	(0.83)	(0.83)
Compressive Strength (Min.)	ASTM D1621	psi	10	10
	@ 10% Strain	(kPa)	(70)	(70)
Water Absorption (Max.)	ASTM D2842	%	4.0	4.0
Water Vapor Permeance <sup>1</sup>	ASTM E96	US perm	2.74	0.15
		(ng/Pa.s.m <sup>2</sup> )	(157)	(8.6)
Flexural Strength (Min.)	ASTM C203	psi	25	25
		(kPa)	(173)	(173)
Dimensional Stability (Max.)	ASTM D2126	%	1.5	1.5
Limiting Oxygen Index (Min.)	ASTM D2863	%	24	24
Density	ASTM D1622	lb/ft <sup>3</sup>	1.00	1.00
		(kg/m <sup>3</sup> )	(16)	(16)
Surface Burning Characteristics	ASTM E84/UL-723 <sup>2</sup>			
	Flame Spread Index (FSI)		≤25	≤25
	Smoke Developed Index (SDI)		≤450	≤450
	CAN/ULC-S102 <sup>3</sup>			
	Flame Spread Index (FSI)		≤250	≤250
	Smoke Developed Index (SDI)		≥500	≥500

<sup>1</sup> Measurement per 1" (25mm) of thickness  
<sup>2</sup> For thicknesses up to 4"  
<sup>3</sup> For thicknesses up to 100mm

The maximum continuous operating temperature for SilverBoard Graphite is 158°F (70°C). The ultra violet (UV) stable polypropylene film allows exposure for up to 90 days (3 months) once the boards are installed (board edges should be covered with tape). The film is compatible with virtually any approved sheathing tape as long as the surface is clean and dry before the installation.

**Availability**

SilverBoard Graphite comes in two standard configurations, perforated (SBGXS) and non-perforated (SBG), both are available in a wide range of thicknesses ranging from 1/2" (13mm) to 6" (152mm). Standard board dimensions include 4x8' and 4x9' (1.2x2.4m and 1.2x2.7m).

**Applications**

- Exterior above grade walls
- Component of building recladding
- Interior below grade foundation walls

**Warranty**

Alleguard supports building owners, designers and contractors by offering a 20-year, limited thermal warranty on SilverBoard Graphite product line. This warranty is available to the building owner at the time the building is completed and is transferable to any subsequent owner during the 20-year period.

