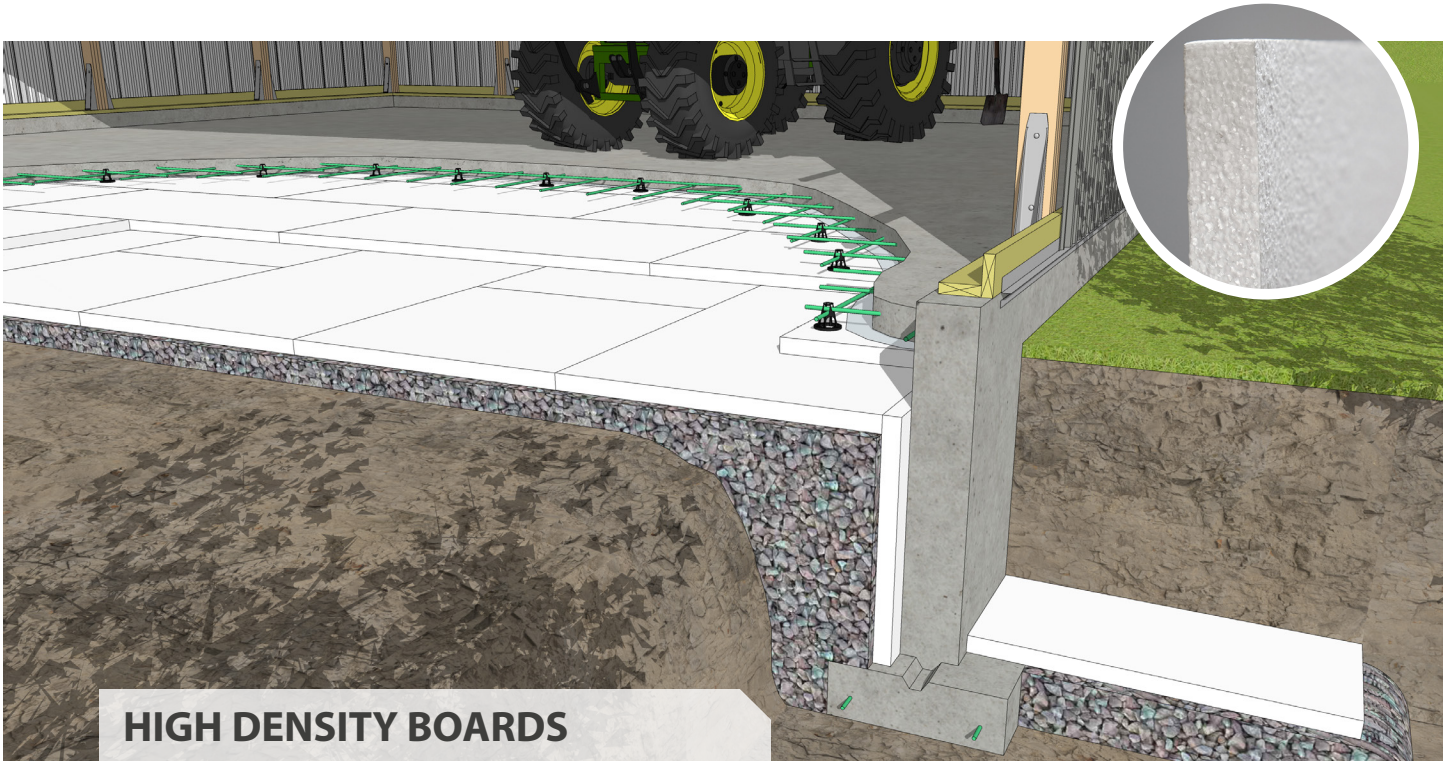
Alleguard

Envirosheet Rigid Board Insulation



Envirosheet is a non-structural, rigid insulation board made from closed cell Expanded Polystyrene (EPS) offering cost effective performance. Designed to be installed as continuous insulation, reduce thermal bridging, and directly improve building envelope performance.

Envirosheet's exceptionally low, long term, in-service water absorption properties allow it to maintain its specified thermal performance and durability when installed for slab on grade or below grade applications.

QAI Listing B1061-1

Alleguard Advantage

- Stable long term thermal resistance.
- Increased thermal resistance in lower temperatures.
- High vapor permeance allowing wall assemblies to dry over time.
- 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.
- The availability of larger panels help improve job site efficiency and reduce labor costs.

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Availability

Envirosheet is available in a wide range of thicknesses ranging from 1/2" (13mm) to 6" (152mm). Standard board dimensions include 4x8', 4x9' and 4x10' (1.2x2.4m, 1.2x2.7m and 1.2x3.0m).

Applications

- Under concrete slab
- Foundation walls
- Flat and sloped roofs
- Ice rinks
- Frost walls
- Exterior above grade walls

The maximum continuous operating temperature for Envirosheet is 158°F (70°C). EPS exposure to ultra violet (UV) is limited to a thin layer causing slight discoloration and surface dusting. The material underneath remains unaffected maintaining its properties. Prolonged exposure may cause minimal reduction in thickness. To avoid membrane adhesion issues, apply membrane right after board installation or remove the UV affected material by brushing/rasping the surface to expose unaffected EPS (avoid hydrocarbons and petroleum based products).

Warranty

Alleguard supports building owners, designers and contractors by offering a 20-year, limited thermal warranty on Envirosheet 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.

Physical Properties Table

	Standard	Units	EN12	EN16 (HD)	EN20 (HD)	EN25 (HD)	EN30 (HD)	EN40 (HD)	EN50 (HD)	EN60 (HD)
Specification for Rigid Polystyrene Insulation	ASTM C578		Type I	Type II	Type II	Type IX	Type IX	Type XIV	Type XV	Type XV
	CAN/ULC-S701.1		Type 1	Type 2	Type 2	Type 3	Type 3	Type 3	Type 3	Type 3
Thermal Resistance[1]	ASTM C518	$F.ft^2.hr/Btu$	3.9	4.0	4.2	4.3	4.4	4.4	4.4	4.4
	@ 75°F (24°C)	(m^2K/W)	(0.69)	(0.70)	(0.74)	(0.76)	(0.77)	(0.77)	(0.77)	(0.77)
Compressive Strength	ASTM D1621	psi	12	16	20	25	30	40	50	60
	@ 10% Strain	(kPa)	(83)	(110)	(138)	(172)	(207)	(276)	(345)	(414)
Water Absorption (Max.)	ASTM D2842	%	4.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0
Water Vapor Permeance (Max.)[1]	ASTM E96	US perms	5.00	3.50	3.50	2.27	2.27	2.27	2.27	2.27
		($ng/Pa.s.m^2$)	(287)	(200)	(200)	(130)	(130)	(130)	(130)	(130)
Flexural Strength (Min.)	ASTM C203	psi	25	35	35	50	50	60	75	75
		(kPa)	(173)	(242)	(242)	(345)	(345)	(414)	(517)	(517)
Dimensional Stability (Max.)	ASTM D2126	%	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Limiting Oxygen Index (Min.)	ASTM D2863	%	24	24	24	24	24	24	24	24
Density	ASTM D1622	lb/ft^3	1.00	1.35	1.50	1.80	2.00	2.50	3.00	3.50
		(kg/m^3)	(16)	(22)	(24)	(29)	(32)	(40)	(48)	(56)
Surface Burning Characteristics	ASTM E84/UL-723[2]									
	Flame Spread Index (FSI)		≤25	≤25	≤25	≤25	≤25			
	Smoke Developed Index (SDI)		≤450	≤450	≤450	≤450	≤450			
	CAN/ULC-S102.2[2]									
	Flame Spread Index (FSI)		≤210	≤210	≤210	≤210	≤210			
	Smoke Developed Index (SDI)		≥500	≥500	≥500	≥500	≥500			

[1] Measurement per 1" (25mm) of thickness
[2] For thicknesses up to 4" or 100mm