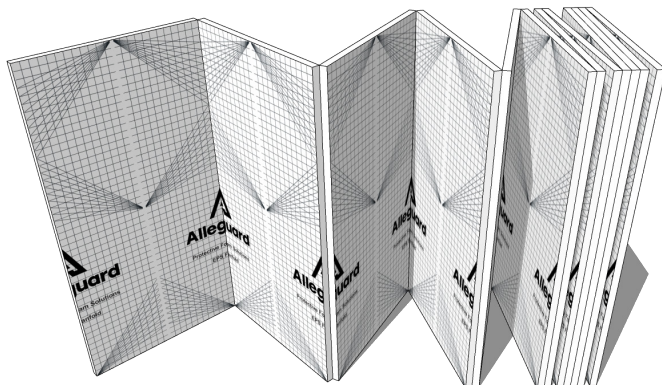


# Fanfold Rigid Board Insulation



## FOLDABLE INSULATION

Alleguard Fanfold (FF) is a non-structural, rigid insulation board made from closed cell Expanded Polystyrene (EPS) with a laminated facer on both sides offering cost effective performance. The boards are lightweight and easy to install allowing for quick installation for increased labor savings. Designed to be installed as continuous insulation, reduce thermal bridging and directly improve building envelope performance. Alleguard Fanfold can be used in both new and retrofit for residential, commercial, and institutional applications.



## Alleguard Advantage

- Stable long term thermal resistance.
- Increased thermal resistance in lower temperatures.
- Functions as a vapor barrier when sealed and taped with an approved vapor barrier tape.
- Micro perforated film on both sides provides high vapor permeance and allows moisture to dry (special order only).
- Double sided film lamination creates durable and flexible boards reducing breakage and site damage.
- Product may contain reprocessed (regrind) material for improved sustainability.
- Does not promote growth of mold and mildew.

**Availability**

Alleguard's Fanfold insulation is made as one continuous sheet 4' (1.2m) wide and standard 50' (5.2m) long covering a total of 200ft<sup>2</sup> (18.6m<sup>2</sup>). The insulation is packaged accordion style with individual panels within the fanfold measuring 2x4' (0.6x1.2m). Boards can be manufactured in a variety of densities and are available in thicknesses of 3/8" (10mm), 1/2" (13mm), and 3/4" (19mm). Available facers include 1/3mil clear polypropylene, 3mil printed polypropylene and 3mil metalized (reflective) polypropylene film.

**Applications**

- Exterior above grade insulation
- Roof cover board
- Level uneven surfaces
- Siding underlayment
- Interior below grade insulation
- Foundation perimeter skirting insulation
- Freezers and cold storage

**Physical Properties Table**

	Standard	Units	FF10	FF13	FF15 (HD)	FF20 (HD)	FF30 (HD)	FF40 (HD)
Specification for Rigid Polystyrene Insulation	ASTM C578		Type I	Type VIII	Type II	Type II	Type IX	Type XIV
	CAN/ULC-S701		Type 1	Type 1	Type 2	Type 2	Type 3	Type 3
Thermal Resistance <sup>1</sup>	ASTM C518	F.ft <sup>2</sup> .hr/Btu	3.9	3.9	4.0	4.2	4.4	4.4
	@ 75°F (24°C)	(m <sup>2</sup> K/W)	(0.69)	(0.69)	(0.70)	(0.74)	(0.77)	(0.77)
Compressive Strength	ASTM D1621	psi	10	13	15	20	30	40
	@ 10% Strain	(kPa)	(69)	(90)	(104)	(138)	(207)	(276)
Water Absorption (Max.)	ASTM D2842	%	4.0	3.0	3.0	3.0	2.0	2.0
Water Vapor Permeance (Max.) <sup>1</sup>	ASTM E96	US perms	5.00	3.50	3.50	3.50	2.27	2.27
		(ng/Pa.s.m <sup>2</sup> )	(287)	(200)	(200)	(200)	(130)	(130)
Flexural Strength (Min.)	ASTM C203	psi	25	30	35	35	50	60
		(kPa)	(173)	(208)	(242)	(242)	(345)	(414)
Dimensional Stability (Max.)	ASTM D2126	%	1.5	1.5	1.5	1.5	1.5	1.5
Limiting Oxygen Index (Min.)	ASTM D2863	%	24	24	24	24	24	24
Nominal Density	ASTM D1622	lb/ft <sup>3</sup>	1.00	1.25	1.35	1.50	2.00	2.50
		(kg/m <sup>3</sup> )	(16)	(18)	(22)	(24)	(32)	(40)
Surface Burning Characteristics	ASTM E84 <sup>2</sup>							
	Flame Spread Index (FSI)		≤25	≤25	≤25	≤25	≤25	
	Smoke Developed Index (SDI)		≤450	≤450	≤450	≤450	≤450	
	CAN/ULC-S102 <sup>2</sup>							
	Flame Spread Index (FSI)		≤210	≤210	≤210	≤210	≤210	
	Smoke Developed Index (SDI)		≥500	≥500	≥500	≥500	≥500	

<sup>1</sup> Measurement per 1" (25mm) of thickness

<sup>2</sup> For thicknesses up to 4" or 100mm

**Enhanced R-Value for Walls**

R2.9 (RSI 0.51) can be added to any of the Fanfold R-Values listed in the table above by ensuring that a 3/4" (19mm) sealed air space is added in front of the board with a reflective facer. Based on data from 2021 ASHRAE Handbook of Fundamentals, Chapter 26.14 - Table 3.

**Enhanced R-Value for Roofs**

R1.7 (RSI 0.30) can be added to any of the Fanfold R-Values listed in the table above by ensuring that a 3/4" (19mm) sealed air space is added in front of the board with a reflective facer. Based on data from 2021 ASHRAE Handbook of Fundamentals, Chapter 26.14 - Table 3.