



cellofoam®


Poly Shield®

Heat Laminated Sheathing

Cellofoam's POLY SHIELD heat laminated sheathing, offers tough poly facers for added strength and durability-important in storing, handling and installation.

POLY SHIELD's closed cell expanded polystyrene (EPS) core wraps the structure in permanent R-value, retarding radiant heat flow and reducing air-infiltration.

POLY SHIELD offers both high efficiency and low cost insulation.



POLY SHIELD is made of Cellofoam EPS rigid insulation, faced with a tough poly laminate or a reflective foil facer. If a reflective surface is not desired, poly laminate can be ordered on both sides. Standard thicknesses are 1/2 inch, 3/4 inch and 1 inch. Standard density is 1 pcf. Other densities up to 3 pcf and thicknesses up to 4 inches are also available.

Because POLY SHIELD is made of millions of closed cells of expanded polystyrene, it has an excellent resistance to heat transfer. Not a vapor barrier.

When POLY SHIELD is properly installed it doesn't deteriorate with age, is resistant to mildew, rot, fungus, bacteria, and doesn't require maintenance. The tough facings resist abuse during construction and storage/warehousing.

POLY SHIELD is recyclable and environmentally friendly. It contains no CFCs, HFCs, HCFCs or formaldehyde.

- ✓ Delivers the most R-Value per \$
- ✓ Retains Thermal Properties (No Thermal Drift)
- ✓ High Resistance To Moisture
- ✓ Lightweight
- ✓ Easy to Install
- ✓ Abuse Resistant
- ✓ Installation labor reduced by approximately 60%
- ✓ Environmentally Friendly. (contains no formaldehyde or ozone-depleting CFCs, HFCs, or HCFCs)
- ✓ Versatile – Poly Laminate and Reflective Foil Facers

Tongue & Groove

POLY SHIELD tongue-and-groove (T&G) EPS panels form an ideal substrate for siding in conventional and manufactured homes. With high energy costs and green initiatives taking hold across the nation, the high insulating value of this building approach is growing in popularity.

T&G's interlocking joints form a consistent insulation barrier and a smooth surface with seamless joints for the application of siding. The panels are moisture resistant and can absorb building movement while reducing air movement in the wall.

POLY SHIELD® SE



Straight Edge
Butt Joint

POLY SHIELD® TG



Tongue & Groove
- Available in 3/4" & 1" -

Physical Properties of CELLOFOAM® Expanded Polystyrene

Property	Units	ASTM Test	SPECIAL ORDER ONLY		
			Type I	Type VIII	Type II
Nominal Density	pcf	C 303	1.0	1.25	1.5
Thermal Resistance at 40F at 75F	per inch thickness	C 518 or C 177	4.17 3.85	4.25 3.92	4.55 4.17
Coefficient Thermal Expansion	in/(in) (F)	D 696	0.000035	0.000035	0.000035
Maximum Service Temperature Long Term Intermittent	°F °F	---- ----	167 180	167 180	167 180
Compressive Strength at 10% deformation	psi	D 1621	10-14	13-18	15-21
Flexural Strength	psi	D 203	25-30	32-38	40-50
Capillarity	----	----	none	none	none
Water Vapor Transmission	perm in	E96	2.0-5.0	1.5-3.5	1.0-3.5
Water Absorption (by volume)	%	C 272	< 4.0	< 3.0	< 3.0

Physical Properties of POLY SHIELD®

Compressive Strength at 10% deformation	psi	D 1621	13	16	20	28
Flexural Strength	psi	C 203	33	40	50	70
Water vapor transmission	perm in	E96	< 1.0	< 1.0	< 1.0	< 1.0
Water absorption (by volume)	%	C 272	< 1.0	< 1.0	< 1.0	< 1.0

R-Value + Dead Airspace*

Sizes	Thickness	Dead Airspace*			
Regular POLY SHIELD is 4' x 8', 1/2", 3/4" and 1". Other thicknesses are available upon request.		0"	1/2"	3/4"	1-1 1/2"
	1/2"	2.0	4.4	4.7	4.4
	3/4"	2.9	5.4	5.7	5.4
	1"	3.9	6.3	6.6	6.3

*Dead Airspace R-Value per ASHRAE Thermal Resistances of Plane Air Spaces



Thermal Retention

All types of EPS insulation will retain their specified thermal and mechanical properties even after being subjected to in-situ freeze-thaw cycling.



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EPS MANUFACTURER SINCE 1966

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