Atlas Insulating Sheathing

PRODUCT DATA SHEET

Product Descriptions

RBOARD®: Rboard is a rigid polyiso foam board insulation with a coated fibrous facer on both sides.

ENERGY SHIELD®: Energy Shield is a rigid polyiso foam board insulation with a triplex facer (foil-kraft-foil) on the topside and a foil facer on the unprinted back side.

ENERGY SHIELD® PLUS: Energy Shield Plus is the non-reflective version of Energy Shield, plus non-reflective trilaminate facers to ease the installation process.

STUCCO-SHIELD®: Stucco-Shield is a rigid, polyiso foam board with specially coated, patented facers on both surfaces specifically for use as substrate for polymer stucco systems.

Recommended Uses

RBOARD® insulating sheathing is recommended for the following concealed applications when protected by a 15 minute thermal barrier: Exterior Walls, Interior Walls, Ceilings, Slab on Grades, Basement Walls (Interior/Exterior), Cathedral Ceilings, Exterior Roof Decks, Re-siding Projects, 1 Hour Rated Fire Walls and Cavity Walls. Some exterior hardboard and vinyl siding manufacturers do not recommend their products for use over foil-faced insulation. Rboard, a uniquely designed non-reflective product, can be used behind wood, brick, vinyl, aluminum and hardboard sidings. **Not for use as synthetic stucco substrate.**

ENERGY SHIELD® or ENERGY SHIELD® Plus insulating sheathing is recommended for the following concealed applications when protected by a 15 minute thermal barrier: Exterior Walls, Interior Walls, Ceilings, Slab on Grades, Basement Walls (Interior/Exterior), Cathedral Ceilings, Exterior Roof Decks, Re-siding Projects, 1 Hour Rated Fire Walls and Cavity Walls.

STUCCO-SHIELD® insulating sheathing is specifically designed to be used as a substrate for polymer base and modified stucco systems. Apply Stucco-Shield directly to the exterior side of metal framing, wood framing or masonry construction. Before using Stucco-Shield, the polymer stucco system manufacturer should be consulted for suitability and approvals.

Installation

Atlas recommends and supports the WarmWall System℠. The WarmWall System℠ covers all framing members 100%, including the corners, with Atlas Insulating Sheathings. WarmWall is a way to wrap your entire house with a high thermal insulating sheathing, reducing heating and cooling loss in all wall locations, not just the stud cavities. When using Atlas Insulating Sheathings on your home, you can meet or exceed the Model Energy Code for your area and also greatly reduce the potential for condensation problems.

ENERGY SHIELD®, ENERGY SHIELD® PLUS AND RBOARD®: Use code accepted shear or corner bracing, such as 1" x 4" let-in or steel strapping. Energy Shield, Energy Shield Plus and Rboard insulating sheathing should be placed with the longest edge in a vertical position with edges on stud centers. Stud wall spacing of 16" o.c. does not require horizontal support; however, 24" o.c. stud spacing should have a horizontal 2" x 4" at mid-height for internal support. Nailing should be done with 3/8" diameter head galvanized roofing nails long enough to penetrate the wood stud at least 3/4". Sixteen gauge wire staples having a crown minimum of 3/4" wide and legs long enough to penetrate the framing at least 1/2" may also be used. Staple crowns should be parallel with the longest edge of the Energy Shield, Energy Shield Plus and Rboard. Do not allow the nail head or staple crown to penetrate the sheathing surface. Fasteners should be placed no closer than 3/8" to the perimeter edges of Energy Shield, Energy Shield Plus and Rboard, spaced 12" o.c. around the perimeters (including top plate and sole plate), and spaced 12" o.c. in the field of the board. When nailing siding materials over Energy Shield, Energy Shield Plus and Rboard, care should be taken to avoid crushing the sheathing.

STUCCO-SHIELD®: Stucco-Shield less than 1" in thickness must be installed over solid backing. Use code accepted shear or corner bracing in all cases such as 1" x 4" let-in or steel strapping. Stucco-Shield should be placed with the printed side toward the building and with the longest edge in a vertical position with edges on stud centers. Stud wall spacing of 16" o.c. does not require horizontal support; however, 24" o.c. stud spacing should have a horizontal 2" x 4" at mid-height to support the Stucco-Shield. Each board must be attached with galvanized or other corrosion-resistant fasteners with minimum 1 1/4" diameter rigid washer caps. Suitable fasteners should be placed no closer than 3/8" to the perimeter edges of Stucco-Shield, spaced 12" o.c. on all perimeters, including the top and bottom, as well as in the field of the board. Because the washer caps may extend beyond the edge of the board, it is better to butt the second board to the first board prior to nailing either one of the adjacent edges. Do not overdrive fasteners. Smooth shank fasteners (12 gauge min.) must penetrate wood studs a minimum of 1 1/2". Wood screws and ring shank nails (12 ga. min.) must penetrate wood studs a minimum of 1". Metal studs must be penetrated 3/4" with self tapping screws.

Caulking (as specified by the EIFS system manufacturer) should be used to seal field cut irregularities at joints and around wall penetrations to ensure a closed surface for the polymer stucco base coat. All requirements for control of thermal, mechanical, and/or structural movement must be as required by the synthetic stucco coatings manufacturer. Horizontal control joints are needed at floor junctures to compensate for construction lumber shrinkage. Be sure to consult the coating manufacturer.

Although Stucco-Shield is weather resistant, it should be coated with the system base coat within 2 weeks of installation. In the event Stucco-Shield becomes moist prior to application of the base coat, it must be allowed to completely air dry to ensure proper adhesion of the base coat. Keep dust and all other contaminants off the surface of Stucco-Shield.

Avoid unequal stress on the exterior walls by making sure all roofing materials are distributed equally on the roof and distribution of all interior gypsum board is completed prior to application of the base coat.

Atlas requires full mesh reinforcement in the base coat for best impact resistance and total system performance. Follow coating manufacturer's instructions regarding reinforcement mesh application. Expansion control joints are required at each floor level to accommodate the inherent movements of the framing materials.

SPECIAL NOTICE: When building in areas of high humidity, and where building codes require it, a code-approved vapor retarder should be used. Typical vapor retarders used include kraft-faced batt insulation or polyethylene sheeting of a specific thickness. Review your local building codes and model energy codes to determine the requirements in your area.

While Atlas' sheathings are weather resistant, they are not designed for long term exterior exposure. Atlas recommends that they be covered with the permanent siding within 60 days of installation.

WARNING: These Products Will Burn. Do Not Leave Exposed. Atlas sheathing must have 1/2" gypsum wallboard, or other code-approved fire barrier, installed between it and the occupied area of a building.

Sheathing Technical Data

Product Name	Standard Thickness	in.	1/2"	5/8"	3/4"	1.0"	1.5"	2.0"	2.5"	3.0"	3.5"
		mm.	13	16	19	25	38	51	63.5	76.2	88.9
Rboard®	R-Value**		3.0	3.8	4.5	6.0	9.0	12.1	15.3	18.5	21.7
	RSI		.53	.67	.79	1.06	1.58	2.13	2.69	3.26	3.82
	4' x 8' Size - Sq. Ft./Pkg		1344	1088	928	704	480	352	576	480	416
	4' x 9' Size - Sq. Ft./Pkg		1512	1244	1044	792	540	396	648	540	468
Energy-Shield®	R-Value**		3.3	4.1	5.0	6.5	9.6	12.8	16.0	19.0	–
	RSI		.58	.72	.88	1.14	1.69	2.25	2.82	3.34	–
	System R-Value*		6.1	6.9	7.8	9.3	12.4	15.6	18.8	21.8	–
	4' x 8' Size - Sq. Ft./Pkg		1440	1152	992	736	480	352	576	480	–
	4' x 9' Size - Sq. Ft./Pkg		1620	1296	1116	828	540	396	648	540	–
Energy Shield® Plus	R-Value**		3.3	4.1	5.0	6.5	9.6	12.8	16.0	19.0	–
	RSI		.58	.72	.88	1.14	1.69	2.25	2.82	3.34	–
	4' x 8' Size - Sq. Ft./Pkg		1440	1152	992	736	480	352	576	480	–
	4' x 9' Size - Sq. Ft./Pkg		1620	1296	1116	828	540	396	648	540	–
Stucco-Shield®	R-Value**		3.0	–	4.5	6.0	9.0	12.1	–	–	–
	RSI		.53	–	.79	1.06	1.58	2.13	–	–	–
	4' x 8' Size - Sq. Ft./Pkg		1344	–	928	704	480	352	–	–	–
	4' x 9' Size - Sq. Ft./Pkg		1512	–	1044	792	540	396	–	–	–

* System R-value is the product R-value plus the 2.8 R additional value as indicated in the ASHRAE Handbook Fundamentals, for 3/4" dead airspace with reflective foil one side. This information is for use in designing wall systems to comply with FTC Regulations.

** Conditioned thermal values were determined by ASTM Test Method C 518 at 75° F mean temperature. All test specimens were conditioned in accordance with procedures outlined in ASTM C 1289-02, Section 11.1.2.1

What You Should Know About R-Values

R means resistance to heat flow. The higher the R-Value, the greater the insulating power. Compare insulation R-Values before you buy.

There are other factors to consider. The amount of insulation you need depends mainly on the climate you live in. Also, your fuel savings from insulation will depend upon the climate, the type and size of your house, the amount of insulation already in your house, and your fuel use patterns and family size. To get the marked R-Value, it is essential that this insulation be installed properly.

Property	Test Method	Typical Results
Dimensional Stability	ASTM D 2126	<2% linear change
Water Absorption	ASTM C 209	<1%by volume
Moisture Vapor Trans.	ASTM E 96	<One (I) Perm (57.5ng/(Pa•s•m²))
Product Density	ASTM D 1622	Nominal 2.0 pcf
Flame Spread**	ASTM E 84	<75
Smoke Development**	ASTM E 84	<450
Service Temperature	——	-100°F to +250°F Max. (-73° to 122°C)

Storage

Sheathings should be stored indoors. If left outdoors for any length of time, keep dry by covering completely with a waterproof tarpaulin. Store flat on pallets elevated at least 4" above the floor or ground and standing water.

Availability & Cost

Availability: Marketed throughout North America and available for export shipment.

Cost: Prices are available from your local dealers.

Warranty: Manufacturer will replace at point of original destination within North America all material shown not to comply with manufacturer's specifications. Atlas Roofing Corporation assumes no responsibility for building design or construction, which is solely the responsibility of the owner, architect, engineer or contractor.

Maintenance: No maintenance required.

Codes & Compliances

Atlas sheathing products comply with the requirements of the following building codes when properly installed:

- Uniform Building Code, Section 2603.
- International Conference of Building Officials, Section 2603.
- International Residential Code, Section 2603. (NER-449)
- BOCA Building Code, Section 2603.
- Standard Building Code, Section 2603.
- Federal Specification, HH-I-1972.
- ASTM C 1289 Standard for Polyiso Insulation.
- CCMC Evaluation Report, #12423-L . (Meets CAN/CGSB 51.86-M86-Type 2)
- Metro Dade Product Notice of Acceptance, Product Control No. 00-0208.04.
- California State Insulation Quality Standards and Title 25 Foam Flammability Criteria - #TC 1231.

Energy Shield has been tested at Factory Mutual Research Corp. for surface burning characteristics, ASTM E 84 with the following results:

Factory Mutual Research
Specification Tested Per ASTM E 84 Test Method
Report J.I. 30092226
Atlas Roofing Corporation
EnergyShield®, EnergyShield® Plus, Rboard®, Stucco-Shield®
Tested with Facings Removed
1.5 - 1.9 16/ft³ (24-30kg/m³) Core Foam Density
ASTM E 84-98 FIRE TEST RESULTS
1/2" Thru 4" Thickness (13 to 102 mm Thickness)
**Flame Spread - 75 or less
**Smoke Density - 450 or less

FM

** These numerical values are not intended to reflect hazards presented by this material under actual fire conditions.

ATLAS ROOFING CORPORATION

WarmWall™ The Superior Sheathing System

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