

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®, with non-reflective trilaminate facers to ease the installation process.

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.

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" metal strapping or "let-in wood". 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.

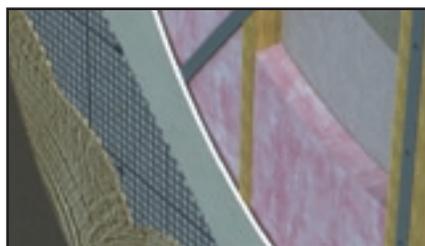
Water Resistive Barrier

Taping and Sealing Procedures: Follow all application instructions of the tape manufacturer. Assure that the mounting surface areas of the sheathing are clean where the flashing tape and sealant materials are to be applied, this is important to the adhesion qualities of the Atlas WRB flashing tape and sealant products.

Start the flashing tape application at the bottom of the wall assembly and work upward as you install the system's components. This will assure the basic function of the water shedding action of the flashing materials.

- Apply the flashing tape to all previously sealed/caulked and mounted, window flanges and door edge openings. Center the tape over the mounting flange edges. Tape all areas per the following procedures:

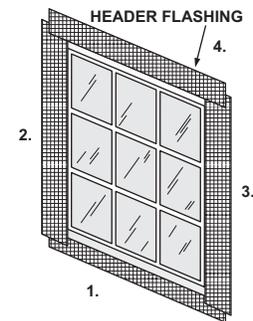
1. Apply the Atlas WRB flashing tape to the horizontal joints. The tape should be centered over all panel joints. Overlap all joints in the flashing tape by at least 3".



2. Apply the Atlas WRB flashing tape to all vertical joints of the insulating panels, continuing over the junctures of the previously taped, horizontal joints.

3. All insulating panel joints must be taped. All window and door openings must be sealed and taped per these instructions as well as the window and door manufacturers installation requirements. These instructions are designed to augment, not replace, the installation instructions of the door and window manufacturers. Apply tape in the order shown here.

4. Tape all joints where insulating panels and wood structural panels meet, just as when taping insulating panel joints.



- All other penetrations through the exterior of the wall assembly must be sealed and/or taped with these same materials to ensure a full Water Resistive Barrier system. Hose bibs, electrical access, dryer vents or any other wall penetration must be fully sealed/caulked.
- Cover the wall assembly with a code approved exterior wall cladding as soon as is practical. Atlas recommends that all of the wall cladding materials be installed within 60 days of installing this Water Resistive Barrier system of materials.

SPECIAL NOTICE: When building in areas of high humidity, and where building codes require it, a code-approved interior 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's 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.



Product	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
	Pieces/Pkg		42	34	29	22	15	11	18	15	13
	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	22.0
	RSI		.58	.72	.88	1.14	1.69	2.25	2.82	3.34	3.87
	Pieces/Pkg		45	36	31	23	15	11	18	15	13
	System R-value**		6.1	6.9	7.8	9.3	12.4	15.6	18.8	21.8	24.8
	4' x 8' Size - Sq. Ft./Pkg		1440	1152	992	736	480	352	576	480	416
Energy Shield® Plus	R-value**		3.3	4.1	5.0	6.5	9.6	12.8	16.0	19.0	22.0
	RSI		.58	.72	.88	1.14	1.69	2.25	2.82	3.34	3.87
	Pieces/Pkg		45	36	31	23	15	11	18	15	13
	4' x 8' Size - Sq. Ft./Pkg		1440	1152	992	736	480	352	576	480	416
	4' x 9' Size - Sq. Ft./Pkg		1620	1296	1116	828	540	396	648	540	486

* System R-value is the product R-value plus the 2.8 R-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 1289-07, Section 11.1.2.1

Note: Canada's CCMC has set all polyiso foam R-values at 6.0 per inch - straight line - for all available thicknesses. Published R-values are determined by ASTM C518 as noted above.

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 (l) 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 & compliance agencies when properly installed:
- International Building Code, Section 1404.2 (ESR-1375)
 - International Residential Code, Section R703 (ESR-1375)
 - BOCA National Building Code, Section 1404.3 (ESR-1375)
 - Standard Building Code, Section 2303.3 (ESR-1375)
 - Uniform Building Code, Section 1402.1 & 2506.4 (ESR-1375)
 - Federal Specification, HH-I-1972
 - ASTM C 1289 Standard for Polyiso Insulation.
 - CCMC Evaluation Report, #12423-L (Rboard®), #12422-R (Energy Shield®); (Meets CAN/CGSB 51.86-M86-Type 2)
 - Miami-Dade County, Florida, 4/14/13, NOA No. 08-0111.01
 - California State Insulation Quality Standards and Title 25 Foam Flammability Criteria - #TC 1231
 - CAN/ULC S704-01, Type 2, Class C

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. 3009226
Atlas Roofing Corporation



Energy Shield®, Energy Shield® Plus, Rboard®, Stucco-Shield® Tested with Facings Removed

Foam Density 1.5 - 1.9 PCF (24-30kg/m3) core
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
- ** These numerical values are not intended to reflect hazards presented by this material under actual fire conditions.

Sales Offices

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| Camp Hill, PA
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