

THERMASHEATH®-XP

INSULATION FOR EXPOSED USE

PRODUCT DESCRIPTION

Rmax Thermasheath®-XP is an energy-efficient thermal insulation board composed of a closed-cell polyisocyanurate (polyiso) foam bonded to durable, embossed aluminum facers on both sides. One side has a white modified acrylic coating, and the other side has a reflective surface with a clear coating for limited protection against oxidation.

COMPLIANCES

- ASTM C1289 Type I, Class 1 and 2
- International Residential Code (IRC)
- International Building Code (IBC) Section 2603, Foam Plastic
- International Energy Conservation Code (IECC)
- ASHRAE 90.1
- DrJ TER 1309-03
- Class A Flame Spread and Smoke Developed Indices per IBC Chapter 8, Interior Finishes
- Tested per UL1715/NFPA 286 to comply with IBC Section 2603, Special Approval paragraph
 - Up to 4.5" without a thermal barrier on walls only
 - Up to 12" without a thermal or ignition barrier on ceilings only
 - Up to 4.5" without an ignition barrier on walls and ceilings
- 1, 2, 3 or 4 hour Fire Rated Assemblies as shown in the UL Fire Resistance Directory.

NOTE: For details, requirements and/or limitations, refer to Third-Party Evaluation Reports

APPLICATIONS

Masonry walls; stud walls; attics and crawl spaces; sheds and other light storage structures

THERMAL PROPERTIES / PRODUCT DATA

"R" means resistance to heat flow. The higher the R-value, the greater the insulating power.

NOMINAL THICKNESS	THERMAL R-VALUE ¹
Inches	°F•ft ² •hr/Btu
0.50	3.0
0.75	4.5
1.00	6.0
1.10	6.6
1.25	7.5
1.30	7.8
1.50	9.1
1.60	9.7
1.90	11.5
2.00	12.1
2.20	13.4
2.50	15.3
3.00	18.5
3.20	19.8
3.50	21.8
4.00	25.0
4.50	28.3

¹Thermal values are determined by using ASTM C518 test method at 75°F mean temperature on material conditioned according to PIMA Technical Bulletin No. 101.

TYPICAL PHYSICAL PROPERTIES

Physical properties shown are based on data obtained under controlled conditions and are subject to normal manufacturing tolerances.

PROPERTY	TEST METHOD	RESULTS
Density, Overall, Nominal	ASTM D1622	2.0 pcf
Compressive Strength	ASTM D1621	20 psi ¹
Flexural Strength	ASTM C203	60 psi
Flame Spread, Faced ²	ASTM E84	25 or Less
Smoke Developed, Faced ²	ASTM E84	< 450
Air Permeance	ASTM E2178	< 0.02 L/(s•m ²)
Water Vapor Permeance	ASTM E96	< 0.03 Perm
Water Absorption	ASTM C209	< 0.2% Vol.
Dimensional Stability, Length and Width	ASTM D2126	< 1% Linear Change
Mold Resistance	ASTM D3273	10, no defacement
White Side: Reflectance	ASTM E408	0.5
Emittance		
Silver Side: Reflectance	ASTM E408	0.94
Emittance		
Service Temperatures		250°F max

¹Less than 1" is standard at 16 psi. Available in 25 psi upon request.
²Flame spread and smoke numbers are shown for comparison purposes only and are not intended to represent the performance of Thermasheath®-XP and related components under actual fire conditions.

Thermasheath®-XP is shipped in bundles that are approximately 48" high and wrapped in plastic for easy handling. Visit www.rmax.com for a complete list of thicknesses and packaging information.



BUILDING TRUST



APPLICATION / INSTALLATION

General – Thermasheath®-XP passes UL1715/NFPA 286 without joint treatment of any kind*. Therefore, the boards only need to be tightly butted. However, taping the seams is acceptable. Rmax recommends using R-SEAL 3000 or equivalent for the reflective silver side, and R-SEAL 3000W or equivalent for the white side.

Thermasheath®-XP may be covered with an interior finish product provided it is compliant with the requirements of IBC Chapter 8. A quality grade acrylic latex paint is recommended for coating the surface. While primer is not generally required, consult the paint manufacturer and/or industrial paint supply for recommendations and best practices.

Radiant Barrier – The reflective side of Thermasheath®-XP acts as a radiant barrier; adding to the energy efficiency of the assembly. To achieve radiant barrier properties, the silver surface must face an air space. For optimal performance, install perpendicular to the radiant heat flow and in a manner to minimize dust accumulation. The ASHRAE Handbook of Fundamentals, assigns values to air-tight spaces under varying conditions. For example, ASHRAE assigns a 2.77 R-value to a 3/4" air-tight space against a reflective foil in a typical wall assembly – such as when Thermasheath®-XP is installed over furring strips against a block wall. This value is in addition to the R-value of the polyiso foam.

Securement – Thermasheath®-XP may be fastened to wood framing using washers with roofing nails or bugle head screws or minimum 3/4" cap nails. The fasteners shall be long enough to penetrate at least 1" into the wood framing. Thermasheath®-XP may be fastened to metal framing using self-taping screws and plastic washers. The fasteners shall be long enough to penetrate at least 4 threads into the metal framing. Wherever possible, the insulation boards shall be installed vertically with all edges tightly butted. Vertical joints must be backed by framing. Thermasheath®-XP may be secured to concrete surfaces using plastic masonry fasteners with washers or a quality grade construction adhesive. Rodenhouse fasteners, sold by Rmax, are a great option for fastening Thermasheath®-XP to wood, steel and concrete substrates. Refer to the Rmax/Rodenhouse Fastener List and Installation Guide for more details.

Pressure Washable – Thermasheath®-XP is pressure washable, up to 1000 psi using a spray rig. The wand nozzle must have a fan spray tip with an angle of at least 15 degrees. The washing wand should not be used at a distance of less than 3' from the surface of the insulation board. Pressures greater than 1000 psi may result in damage to the insulation facer.

*Walls only or ceilings only without a thermal barrier or walls and ceilings without an ignition barrier.

LIMITATIONS

Thermasheath®-XP is not recommended, nor warranted, for use as a commercial roof insulation. Consult Rmax Sales for suitable commercial roof insulation products. Thermasheath®-XP is not a structural panel; stud walls insulated with Durasheath® must be properly braced for lateral loads according to the requirements of local Building Codes.

WARNING

Polyiso is an organic material which will burn when exposed to an ignition source of sufficient heat and intensity and may contribute to flames spreading.

Consult local building codes and insurance authorities regarding special applications or details required when using Thermasheath®-XP as an exposed product.

Per the IBC, a WRB is required behind the exterior wall veneer. The code also has provisions regarding vapor retarders, type and location, based on the assembly, climate zone and the amount of continuous insulation. It is up to the design professional to specify an assembly that will perform adequately and meet these requirements.

WARRANTY

See Rmax "Sales Policy" for terms and conditions. Rmax does not assume any responsibility or liability for the performance of any products other than those manufactured by Rmax.

NOTE: All Rmax products must be tarped, placed on skids and kept dry before and throughout construction.



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Engineered in the U.S.A.



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PRODUCT DATA SHEET
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