R-Matte® Plus-3
Insulation for the Building Envelope

PRODUCT DESCRIPTION

Rmax R-Matte® Plus-3 is an energy-efficient thermal insulation board composed of a closed-cell polyisocyanurate (polyiso) foam core bonded to reinforced aluminum foil facers on each side. While one side of the board has a reflective surface, the other side has been coated to have a non-reflective white matte surface. Boards can be installed with either the silver or white side out. For additional radiant barrier properties, install silver side against air space if one exists.

COMPLIANCES

- ASTM C1289 Type I, Class 1 and 2
- International Building Code (IBC) Section 2603, Foam Plastic
- ASHRAE 90.1
- Miami-Dade County Product Control Approved
- CA Insulation Directory
- Tested per NFPA 286 (ICC-ES AC12 Appendix B)

APPLICATIONS

Stud walls; cavity walls; masonry walls; exterior stucco; re-siding; vaulted ceilings; attics and crawl spaces; limited roofing applications

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•ft²•hr/Btu
0.50	3.2
0.75	5.0
1.00	6.0
1.10	6.7
1.25	7.8
1.50	9.6
1.75	11.4
2.00	13.1
2.10	13.9
2.30	15.3
2.50	16.7
2.90	19.6
3.00	20.3
3.50	23.9
3.70	25.3
4.00	27.4
4.50	31.0

[1]Thermal values are determined by using ASTM C518 test method at 75°F mean temperature on material conditioned according to PIMA Technical Bulletin No. 101.
[2]Includes the ASHRAE assigned 2.77 R-value of a ¾" dead-air space against the reflective foil side of R-Matte® Plus-3 in a typical wall assembly.

R-Matte® Plus-3 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.

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, Core[2]	ASTM E84	75 or Less
Smoke Developed, Core[2]	ASTM E84	< 450
Air Barrier	ASTM E2178	<0.02 L/(s.m²)
Water Vapor Transmission	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
Service Temperatures		250°F max

[1]Less than 1" is standard at 16 psi.
[2]Flame spread and smoke numbers are shown for comparison purposes only and are not intended to represent the performance of R-Matte® Plus-3 and related components under actual fire conditions.

APPLICATION / INSTALLATION

General – R-Matte® Plus-3 shall be installed vertically or horizontally with all edges tightly butted. Vertical joints must be backed by framing or structural sheathing. Taping the joints is acceptable, although not required. Rmax recommends using a pressure sensitive tape such as R-SEAL Construction Tape, R-SEAL 3000, or equivalent.

Securement – Rmax recommends a minimum of eight fasteners per 4'x8' board. Additional fasteners may be required in locations expected to experience additional loading (heavy wind drafts/gusts, accelerated wear and tear, etc.) prior to attachment of covering material (cladding, furring, thermal barrier, etc.) or when not being covered. Exact number of fasteners also depends on the type being used and the capacity, consult fastener manufacturer. Fasten to wood framing using roofing nails, bugle head screws, cap nails, or staples. The fasteners shall be long enough to penetrate wood framing a minimum of 1". Fasten to metal framing using self-taping screws and plastic washers. The fasteners shall be long enough to penetrate metal framing a minimum of four threads. Secure to concrete surfaces using plastic masonry fasteners with washer or a quality grade construction adhesive. Rodenhouse fasteners, sold by Rmax, are a great option for fastening R-Matte® Plus-3 to wood, steel and concrete substrates. Refer to the Rmax/Rodenhouse Fastener List and Installation Guide for more details.

LIMITATIONS

R-Matte® Plus-3 is not recommended, nor warranted, for use as a commercial roof insulation directly under membrane systems. Consult Rmax Sales for suitable commercial roof insulation products.
R-Matte® Plus-3 is not a structural panel. It must not be used as a nailing base for any other building products. Furthermore, stud walls insulated with R-Matte® Plus-3 must be properly braced for lateral loads according to the requirements of local Building Codes.

WARNING

Installations utilizing R-Matte® Plus-3 must be fully protected on the inhabited side of the building by a thermal barrier such as a minimum of 1/2" gypsum wallboard, or equivalent. Consult local Building Codes and insurance authorities regarding special applications or details required when using R-Matte® Plus-3 as an exposed product.

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. Per the IBC and IRC, a WRB is required behind the exterior wall veneer.

WARRANTY

See Rmax "Sales Policy" for warranty 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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PIMA
POLYISOCYANURATE INSULATION MANUFACTURERS ASSOCIATION

ENERGY STAR PARTNER