

## PRODUCT DATA SHEET

# Rmax® Below Grade

## INSULATION FOR EXTERIOR WALL AND FOUNDATION USE

### PRODUCT DESCRIPTION

Rmax® Below Grade is an energy-efficient thermal insulation and protection board composed of a polyisocyanurate (polyiso) foam core bonded to reinforced polymeric facers on each side. Polyiso's closed-cell and closed matrix foam core along with its durable facers create a multi-layered defense against water absorption and protection during backfill, making it a great choice for below-grade applications.

### COMPLIANCES

- ASTM C1289 Type I, Class 1 and 2
- ASHRAE Standard 90.1
- International Energy Conservation Code (IECC)
- International Residential Code (IRC), R316 Foam Plastic
- International Building Code (IBC), 2603 Foam Plastic Insulation
- Miami-Dade County Product Control Approved
- California Code of Regulations, Title 24 (BHFTI License T1523)

### APPLICATIONS

Below-grade exterior walls, blind side walls, under slab and slab on grade

### 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 <sup>1</sup>
Inches	°F•ft <sup>2</sup> •hr/Btu
<b>0.75</b>	<b>5.0</b>
1.00	6.0
<b>1.50</b>	<b>10.0</b>
2.00	13.1
<b>2.30</b>	<b>15.3</b>
3.00	20.3

<sup>1</sup>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.

Rmax® Below Grade is shipped in bundles that are approximately 48" high and wrapped in plastic for easy handling. Visit [rmax.com](http://rmax.com) for 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 <sup>1</sup>	ASTM D1621	25 psi / 30 psi / 40 psi / 60 psi
Flexural Strength	ASTM C203	60 psi
Flame Spread, Core <sup>2</sup>	ASTM E84	75 or Less
Smoke Developed, Core <sup>2</sup>	ASTM E84	< 450
Air Permeance	ASTM E2178	< 0.02 L/(s•m <sup>2</sup> )
Water Vapor Permeance	ASTM E96	< 0.1 perm
Water Absorption	ASTM C1763 Procedure B ASTM C272	< 0.2% Vol. 0.3% max
Dimensional Stability, Length and Width	ASTM D2126	< 1% Linear Change
Mold Resistance	ASTM D3273	10, no defacement
Service Temperatures		250°F max

<sup>1</sup>As specified. Measured at 10% thickness deformation or yield, whichever occurs first.

<sup>2</sup>Flame spread and smoke numbers are shown for comparison purposes only and are not intended to represent the performance of Rmax® Below Grade and related components under actual fire conditions.

## APPLICATION / INSTALLATION

**General** – Rmax® Below Grade shall be installed vertically or horizontally with all edges tightly butted. Taping the joints is not recommended.

**Securement** – For CMU or concrete walls, Rmax® recommends a quality grade construction adhesive compatible with both substrates. For alternate base walls/substrates, use nails, soil pins or actuated fasteners as appropriate. For under slab or slab on grade applications, the insulation can simply be laid in place.

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## LIMITATIONS

Rmax® Below Grade 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. Rmax® Below Grade is not a structural panel; walls insulated with Rmax® Below Grade 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. Installations utilizing Rmax® Below Grade must be fully protected on the inhabited side of the building by a thermal barrier such as a minimum of 1/2" gypsum wallboard.

## WARRANTY

See Rmax® Sales Policy and limited warranties 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: Factory packaging should not be relied upon as protection at job sites or other outdoor storage locations. When short-term outdoor storage is necessary, take the following precautions: Store flat above ground on raised pallets, place bundles on finished surfaces, cover with a breathable tarpaulin and secure cover to prevent wind displacement.**

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For complete details on warranties, limitations, and conditions, please refer to the Rmax® Sales Policy and applicable warranties available at [rmax.com](http://rmax.com).

For sales inquiries, customer support, or technical assistance, visit [rmax.com](http://rmax.com) to connect with our team.



## Rmax®, A Business Unit of Sika Corporation

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[rmax.com](http://rmax.com) - [us.sika.com](http://us.sika.com)

## Manufacturing Plant Locations

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