



# Listing

Report No: 2312-01



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# Sika Rmax Pro Select R-Matte Plus-3

# **Trade Secret Report Holder:**

Rmax, A Business Unit of Sika® Corporation

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# **CSI Designations:**

**DIVISION**: 06 00 00 - WOOD, PLASTICS AND COMPOSITES

Section: 06 16 00 - Sheathing

Section: 06 16 13 - Insulated Sheathing

**DIVISION**: 07 00 00 - THERMAL AND MOISTURE PROTECTION

Section: 07 21 00 - Thermal Insulation

Section: 07 21 13 - Foam Board Insulation

# 1 Innovative Product Evaluated<sup>1</sup>

1.1 Sika Rmax Pro Select R-Matte Plus-3

# 2 Product Description and Materials

2.1 The innovative product evaluated in this report is shown in Figure 1 and described in Table 1.



Figure 1. Sika Rmax Pro Select R-Matte Plus-3





Table 1. Product Information

Product	Description	Materials	Thickness	Width	Length
Sika Rmax Pro Select R-Matte Plus-3	Non-structural Foam Plastic Insulating Sheathing (FPIS) panels consisting of a closed-cell rigid polyisocyanurate (polyiso) foam core bonded to aluminum facers (ASTM C1289 Type I, Class 1 and Class 2).	Polyiso core bonded to reinforced aluminum facers on each side. One side is reflective, the other side is not.	0.5" to 4.5" (12.7 mm to 114 mm)	48" (1,219 mm)	96", 108", 120", and 144" (2,438, 2,743, 3,048, and 3,658 mm)

- 2.2 Custom lengths, widths and thicknesses are available upon request.
- 2.3 As needed, review material properties for design in **Section 6**.

#### 3 Definitions

- 3.1 New Materials<sup>2</sup> are defined as building materials, equipment, appliances, systems or methods of construction not provided for by prescriptive and/or legislatively adopted regulations, known as alternative materials.<sup>3</sup> The design strengths and permissible stresses shall be established by tests<sup>4</sup> and/or engineering analysis.<sup>5</sup>
- 3.2 <u>Duly Authenticated Reports</u><sup>6</sup> and <u>Research Reports</u><sup>7</sup> are test reports and related engineering evaluations, which are written by an approved agency<sup>8</sup> and/or an approved source.<sup>9</sup>
  - 3.2.1 These reports contain intellectual property and/or trade secrets, which are protected by the <u>Defend Trade</u> <u>Secrets Act</u> (DTSA).<sup>10</sup>
- 3.3 An <u>approved agency</u> is "approved" when it is <u>ANAB ISO/IEC 17065 accredited</u>. DrJ Engineering, LLC (DrJ) is listed in the <u>ANAB directory</u>.
- 3.4 An <u>approved source</u> is "approved" when a professional engineer (i.e., <u>Registered Design Professional</u>) is properly licensed to transact engineering commerce. The regulatory authority governing approved sources is the state legislature via its professional engineering regulations.<sup>11</sup>
- 3.5 Testing and/or inspections conducted for this <u>Duly Authenticated Report</u> were performed by an <u>ISO/IEC 17025</u> accredited testing laboratory, an <u>ISO/IEC 17020</u> accredited inspection body and/or a licensed <u>Registered</u> Design Professional (RDP).
  - 3.5.1 The Center for Building Innovation (CBI) is ANAB 12 ISO/IEC 17025 and ISO/IEC 17020 accredited.
- 3.6 The regulatory authority shall <u>enforce</u><sup>13</sup> the specific provisions of each legislatively adopted regulation. If there is a non-conformance, the specific regulatory section and language of the non-conformance shall be provided in <u>writing</u><sup>14</sup> stating the nonconformance and the path to its cure.
- 3.7 The regulatory authority shall accept <u>Duly Authenticated Reports</u> from an <u>approved agency</u> and/or an <u>approved source</u> with respect to the quality and manner of use of new materials or assemblies as provided for in regulations regarding the use of alternative materials, designs or methods of construction.<sup>15</sup>
- 3.8 ANAB is an International Accreditation Forum (IAF) Multilateral Recognition Arrangement (MLA) signatory where recognition of certificates, validation and verification statements issued by conformity assessment bodies accredited by all other signatories of the IAF MLA with the appropriate scope, shall be approved. 16 Therefore, all ANAB ISO/IEC 17065 Duly Authenticated Reports are approval equivalent. 17
- 3.9 Approval equity is a fundamental commercial and legal principle. 18





# 4 Applicable Standards for the Listing; Regulations for the Regulatory Evaluation

#### 4.1 Standards

- 4.1.1 Seal and Insulate with ENERGY STAR
- 4.1.2 ASTM C518: Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- 4.1.3 ASTM C1289: Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board
- 4.1.4 ASTM E84: Standard Test Method for Surface Burning Characteristics of Building Materials

# 5 Listed<sup>19</sup>

5.1 A nationally recognized testing laboratory such as <u>CBI</u>, states that the materials, designs, methods of construction and/or equipment have met nationally recognized standards and/or have been tested and found suitable for use in a specified manner.

# 6 Tabulated Properties Generated from Nationally Recognized Standards

- 6.1 General
  - 6.1.1 Sika Rmax Pro Select R-Matte Plus-3 is used as wall sheathing and continuous insulation in buildings.
  - 6.1.2 Sika Rmax Pro Select R-Matte Plus-3 is a non-structural FPIS panel used as thermal insulation within the building envelope, including, but not limited to, attic, crawlspace, wall, roof, ceiling, floor, and foundation assemblies.
  - 6.1.3 Sika Rmax Pro Select R-Matte Plus-3 may be installed horizontally under floor slabs and vertically on the interior side of footings and exterior side of foundation walls.
  - 6.1.4 Sika Rmax Pro Select R-Matte Plus-3 shall not be used as a nail base for other building products.
- 6.2 Thermal Resistance (R-Value)
  - 6.2.1 Sika Rmax Pro Select R-Matte Plus-3 has the thermal properties shown in Table 2.

Table 2. Thermal Properties

Nominal Thickness (in)	Thermal R-Value¹ (°F·ft²·hr/Btu)
0.5	3.2
1.0	6.0
1.5	9.6
2.0	13.1
2.5	16.7
3.0	20.3
3.5	23.9
4.0	27.4
4.5	31.0

SI: 1 in = 25.4 mm; 1 °F·ft2·h/Btu = 0.1761 K·m2/W

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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.





# 6.3 Fire Safety Performance

- 6.3.1 Surface Burning Characteristics:
  - 6.3.1.1 Sika Rmax Pro Select R-Matte Plus-3 has flame spread and smoke developed ratings shown in **Table 3**, when tested in accordance with ASTM E84.

Table 3. Surface Burning Characteristics<sup>1</sup>

Product	Flame Spread Index	Smoke Developed Index	Classification
Sika Rmax Pro Select R-Matte Plus-32	≤ 75	≤ 450	Class B

SI: 1 in = 25.4 mm

- 1. Tested in accordance with ASTM E84.
- Foam core only.
- 6.4 Where the application falls outside of the performance evaluation, conditions of use and/or installation requirements set forth herein, alternative techniques shall be permitted in accordance with accepted engineering practice and experience. This includes but is not limited to the following areas of engineering: mechanics or materials, structural, building science and fire science.

### 7 Certified Performance<sup>20</sup>

- 7.1 All construction methods shall conform to accepted engineering practices to ensure durable, livable and safe construction and shall demonstrate acceptable workmanship reflecting journeyman quality of work of the various trades.<sup>21</sup>
- 7.2 The strength and rigidity of the component parts and/or the integrated structure shall be determined by engineering analysis or by suitable load tests to simulate the actual loads and conditions of application that occur.<sup>22</sup>

### 8 Installation

- 8.1 Installation shall comply with the approved construction documents, the manufacturer installation instructions, this report and the applicable building code.
- 8.2 In the event of a conflict between the manufacturer installation instructions and this report, the more restrictive shall govern.
- 8.3 Fasteners include, but are not limited to, roofing nails, bugle head screws, cap nails or self-taping screws with washers. Fasteners should penetrate wood framing at least 1 inch and steel framing at least four (4) threads. All fasteners shall be corrosion resistant.
- 8.4 Other means of fastening may also be used, such as masonry fasteners or construction adhesives that are compatible with the insulation.
- 8.5 Consult the manufacturer installation instructions for further details.
- 8.6 For Energy Star installation instructions, see **Appendix A Insulation Instructions for the Seal and Insulate** with ENERGY STAR® Program at the end of this report.

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# 9 Substantiating Data

- 9.1 Testing has been performed under the supervision of a professional engineer and/or under the requirements of ISO/IEC 17025 as follows:
  - 9.1.1 Thermal resistance properties testing in accordance with ASTM C518
  - 9.1.2 Flame spread and smoke developed rating tests in accordance with ASTM E84
- 9.2 Information contained herein may include the result of testing and/or data analysis by sources that are approved agencies, approved sources and/or RDPs. Accuracy of external test data and resulting analysis is relied upon.
- 9.3 Where pertinent, testing and/or engineering analysis are based upon provisions that have been codified into law through state or local adoption of regulations and standards. The developers of these regulations and standards are responsible for the reliability of published content. DrJ's engineering practice may use a regulation-adopted provision as the control. A regulation-endorsed control versus a simulation of the conditions of application to occur establishes a new material as <a href="mailto:being equivalent">being equivalent</a> to the regulatory provision in terms of quality, <a href="mailto:strength">strength</a>, effectiveness, <a href="mailto:fire resistance">fire resistance</a>, durability and safety.
- 9.4 The accuracy of the provisions provided herein may be reliant upon the published properties of raw materials, which are defined by the grade mark, grade stamp, mill certificate, or <u>duly authenticated reports</u> from <u>approved agencies</u> and/or <u>approved sources</u> provided by the supplier. These are presumed to be minimum properties and relied upon to be accurate. The reliability of DrJ's engineering practice, as contained in this <u>Duly</u> Authenticated Report, may be dependent upon published design properties by others.
- 9.5 Testing and engineering analysis: The strength, rigidity and/or general performance of component parts and/or the integrated structure are determined by suitable tests that simulate the actual conditions of application that occur and/or by accepted engineering practice and experience.<sup>23</sup>
- 9.6 Where additional condition of use and/or regulatory compliance information is required, please search for Sika Rmax Pro Select R-Matte Plus-3 on the <u>DrJ Certification</u> website.

### 10 Findings

- 10.1 As outlined in **Section 6**, Sika Rmax Pro Select R-Matte Plus-3 has performance characteristics that were tested and/or meet applicable regulations and is suitable for use pursuant to its specified purpose.
- 10.2 When used and installed in accordance with this <u>Duly Authenticated Report</u> and the manufacturer installation instructions, Sika Rmax Pro Select R-Matte Plus-3 shall be approved for the following applications:
  - 10.2.1 Use within the building envelope including, but not limited to, attic, crawlspace, wall, roof, ceiling, floor and foundation assemblies.
    - 10.2.1.1 For use below grade, products may be installed horizontally under floor slabs and vertically on the exterior side of foundation walls or interior side of footings.
  - 10.2.2 Flame spread and smoke developed indices in accordance with the Seal and Insulate with ENERGY STAR program.
  - 10.2.3 Thermal resistance in accordance with the <u>Seal and Insulate with ENERGY STAR</u> program.
- 10.3 Any application specific issues not addressed herein can be engineered by an RDP. Assistance with engineering is available from Rmax.
- 10.4 IBC Section 104.11 (IRC Section R104.11 and IFC Section 104.10<sup>24</sup> are similar) in pertinent part states:
  - **104.11** Alternative materials, design and methods of construction and equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code. Where the alternative material, design or method of construction is not approved, the building official shall respond in writing, stating the reasons the alternative was not approved.

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- 10.5 Approved: 25 Building regulations require that the building official shall accept Duly Authenticated Reports. 26
  - 10.5.1 An approved agency is "approved" when it is ANAB ISO/IEC 17065 accredited.
  - 10.5.2 An <u>approved source</u> is "approved" when an <u>RDP</u> is properly licensed to transact engineering commerce.
  - 10.5.3 Federal law, <u>Title 18 US Code Section 242</u>, requires that where the alternative product, material, service, design, assembly and/or method of construction is not approved, the building official shall respond in writing, stating the reasons why the alternative was not approved. Denial without written reason deprives a protected right to free and fair competition in the marketplace.
- 10.6 DrJ is a licensed engineering company, employs licensed <u>RDP</u>s and is an <u>ANAB-Accredited Product</u> Certification Body Accreditation #1131.
- 10.7 Through the <u>IAF Multilateral Agreements</u> (MLA), this <u>Duly Authenticated Report</u> can be used to obtain product approval in any <u>jurisdiction</u> or <u>country</u> because all ANAB ISO/IEC 17065 <u>Duly Authenticated Reports</u> are equivalent.<sup>27</sup>

#### 11 Conditions of Use

- 11.1 Material properties shall not fall outside the boundaries defined in **Section 6**.
- 11.2 As defined in **Section 6**, where material and/or engineering mechanics properties are created for load resisting design purposes, the resistance to the applied load shall not exceed the ability of the defined properties to resist those loads using the principles of accepted engineering practice.
- 11.3 As listed herein, Sika Rmax Pro Select R-Matte Plus-3 shall not be used:
  - 11.3.1 As a structural nailing base for claddings.
  - 11.3.2 To resist horizontal loads from concrete or masonry walls.
- 11.4 The actual design, suitability and use of this report for any particular building, is the responsibility of the <u>owner</u> or the authorized agent of the owner.

#### 12 Identification

- 12.1 The innovative product listed in **Section 1.1** is identified by a label on the board or packaging material bearing the manufacturer name, product name, this report number and other information to confirm code compliance.
- 12.2 Additional technical information can be found at www.rmax.com.

#### 13 Review Schedule

- 13.1 This report is subject to periodic review and revision. For the latest version, visit www.drjcertification.org.
- 13.2 For information on the status of this report, please contact DrJ Certification.

### 14 Approved for Use Pursuant to U.S. and International Legislation Defined in Appendix A

14.1 Sika Rmax Pro Select R-Matte Plus-3 is included in this report published by an approved agency that is concerned with evaluation of products or services, maintains periodic inspection of the production of listed materials or periodic evaluation of services. This report states either that the material, product, or service meets recognized standards or has been tested and found suitable for a specified purpose. This report meets the legislative intent and definition of being acceptable to the AHJ.

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# Appendix A Insulation Instructions for the Seal and Insulate with ENERGY STAR® Program

# 1 Description:

1.1 General installation instructions, warnings, limitations and warranty information for Sika Rmax Pro Select R-Matte Plus-3 insulation boards are provided below. Construction diagrams within this report provide additional details based on various applications. Consult <a href="https://retail.usa.sika.com/en/products/insulation">https://retail.usa.sika.com/en/products/insulation</a> for more information and complete literature including, but not limited to, data sheets, SDS, Sales Policy, etc.

#### 2 General Installation Instructions:

- 2.1 Special training and/or certification is not required. This product is designed for an easy install for both DIYs and professional contractors.
- 2.2 Before beginning installation, all surfaces shall be clean and free of irregularities that will affect the placement or performance of the insulation including, but not limited to, dirt, debris, miscellaneous fasteners or warped, defective or otherwise damaged framing.
- 2.3 Installations utilizing R-Matte Plus-3 must be separated from the interior side of the building by a suitable thermal barrier or ignition barrier when required. Refer to the Local Building Official for general exceptions and specific governing codes and requirements. Consult Rmax for special testing and exceptions on thicknesses of 1" or less.
- 2.4 All materials installed over R-Matte Plus-3 (thermal barrier, ignition barrier, furring strips, interior finishes, veneers, roof systems, etc.), must be mechanically attached through the insulation to the framing/structure according to the building code.

### 3 Walls and Ceilings:

- 3.1 Attach insulation boards to framing or other finished surface. Starting at one corner/edge, install boards continuously and tightly abutted to cover entire surface.
  - 3.1.1 Where insulation is cut to accommodate penetrations, voids and gapping should be minimized.
  - 3.1.2 When using compatible adhesives to secure boards, apply the adhesive to the finished surface. Press/hold the board firmly until adhesive is set. Refer to adhesive manufacturer for application recommendations and proper installation techniques.
  - 3.1.3 When using mechanical fasteners to secure boards, use fasteners with sufficient length to penetrate framing or other finished surface (minimum <sup>3</sup>/<sub>4</sub>" into wood or minimum <sup>29</sup>/<sub>64</sub>" into steel). Use a minimum of eight (8) fasteners, spaced evenly throughout the board.
  - 3.1.4 Where multiple rows or layers of insulation exist, stagger joints.
- 3.2 When R-Matte Plus-3 is being used as the vapor retarder, Water-Resistive Barrier (WRB) and/or the air barrier, the following measures should be taken to ensure a complete barrier: All insulation board joints, as well as any breaks or other damage to the face in the insulation shall be sealed with a pressure sensitive tape, such as Rmax R-SEAL 3000 or R-SEAL Construction Tape.
  - 3.2.1 All perimeter edges, transitions and fenestration shall be sealed to the exterior face of the R-Matte Plus-3 with appropriate flashing, including, but not limited to, exposed foam edges, wall to floor and wall to roof transitions, windows, doors, etc.
  - 3.2.2 All penetrations made through the exterior plane of the WRB and/or air barrier shall be sealed using tape, flashing, caulk or other water/air sealing method.





**NOTE**: When R-Matte Plus-3 is not the primary air barrier, ENERGY STAR requires air sealing throughout the envelope by other means.

- 3.3 Refer to individual application details for more specific instructions.
  - 3.3.1 *For Exterior Applications see Details*: Stud Wall Constructions Siding 01, Stud Wall Construction (Brick Veneer) 02, Masonry Wall Construction (Veneer) 03, Re-Siding Construction 04.
  - 3.3.2 For Interior Applications see Details: Masonry Wall Construction 05, Stud Wall & Vaulted Ceilings Construction 06, Attic Knee Wall & Ceiling Construction 07, Below Grade Wall Construction 10, Ceiling Crawl Space Construction 11.

#### 4 Floors and Below Grade:

- 4.1 Attach insulation boards to finished surface.
  - 4.1.1 Install R-Matte Plus-3 over specially prepared based of crushed stone for slab on grade constructions or on existing slab for floor and radiant floor slab constructions.
  - 4.1.2 Starting at one corner/edge, install boards continuously and tightly abutted to cover entire surface.
  - 4.1.3 Where insulation is cut to accommodate penetrations, voids and gapping should be minimized.
- 4.2 Refer to individual application details for more specific instructions. See Details: Slab on Grade Construction 12, Floor Construction 13, Radiant Floors Slab Construction 14.

#### 5 Roofs:

- 5.1 Attach insulation boards to suitable roof deck (tongue-and-groove timber, plywood, or metal deck).
  - 5.1.1 Secure boards to roof deck with enough fasteners to hold it in place until the nailing surface or roof cover system is attached through the insulation to the deck.
  - 5.1.2 Starting at one corner/edge, install boards continuously and tightly abutted to cover entire surface.
  - 5.1.3 Where multiple rows or layers of insulation exist, stagger joints.
  - 5.1.4 Where insulation is cut to accommodate penetrations, voids and gapping should be minimized.
  - 5.1.5 When using compatible adhesives to secure boards, apply the adhesive per the manufacturer recommendations.
  - 5.1.6 When using mechanical fasteners to secure boards, use screw and plate type fasteners with sufficient length to penetrate the deck (minimum 1" into wood or minimum 3/4" into steel).
- 5.2 Rmax strongly recommends the decision to use or not use a vapor retarder in any insulated roofing assembly, as well as its location within the system, be guided by the recommendations of the National Roofing Contractors Association (NRCA).
- 5.3 Refer to individual application details for more specific instructions. See Details: Standing Seam Metal Roof 08, Shingle Roof Construction 09.





### 6 Limitations:

- 6.1 R-Matte Plus-3 should not be used as commercial roof insulation directly under membrane systems.
- 6.2 R-Matte Plus-3 is not a structural panel and must not be used as a nailing base for any other building products. The structure must be properly braced for lateral loads and uplift according to the requirements of the local building codes.
- 6.3 In "very heavy" termite infestation probability areas, except where permitted by code, boards shall not be installed on the exterior face or under interior or exterior foundation walls or slab foundations located below grade, and the clearance between insulation boards installed above grade and exposed earth shall be at least 6 inches (152 mm). Consult the Local Building Official for specific governing codes and requirements.

### 7 Warnings:

7.1 Polyisocyanurate foam is an organic material, which will burn when exposed to an ignition source of sufficient heat and intensity and may contribute to flames spreading. Boards must not be in direct contact with hot objects requiring a certain amount of clearance. Refer to equipment/fixture rating for guidance.

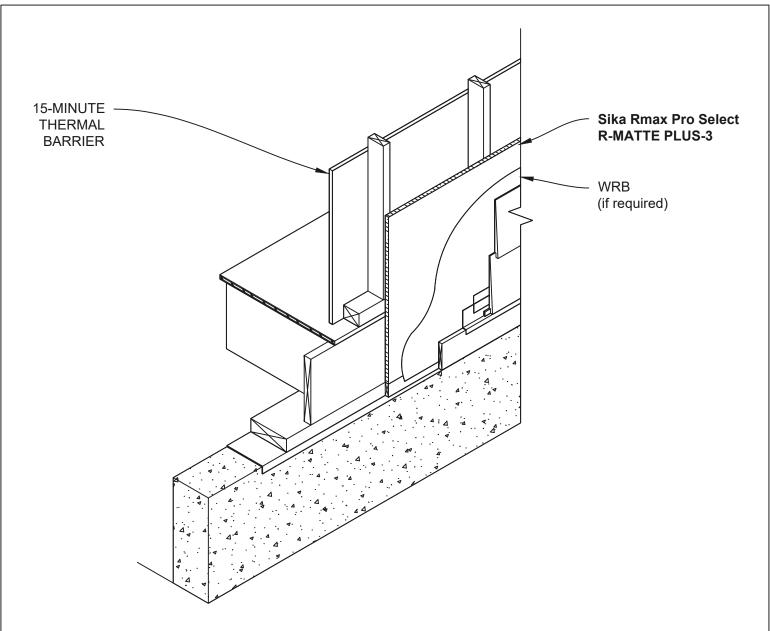
#### 8 Safety:

- 8.1 Cutting R-Matte Plus-3 produces a nuisance or irritant dust use of a dust mask may be necessary.
- 8.2 Safety glasses are always recommended when using power tools.
- 8.3 Proper ventilation should be provided to minimize airborne dust and fumes if using construction adhesives.

# 9 Warranty:

9.1 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 until proper sealing techniques are employed.



- 1. Veneer shown is lap siding. Other veneers, such as stucco and various siding materials aluminum, vinyl, fiber cement, wood and wood based products are also acceptable. For stucco systems, the secondary barrier is required over the R-Matte Plus-3 prior to attaching the metal lathe.
- R-Matte Plus-3 insulation panels shall be secured to the studs using bugle-head screws, galvanized roofing nails, or minimum <sup>3</sup>/<sub>4</sub>" cap nails. A quality grade construction adhesive may also be used to secure the R-Matte Plus-3. The veneer must be mechanically attached through the R-Matte Plus-3 to the studs.
- 3. Where a separate water resistive barrier (WRB) is not included, the joints of the R-Matte Plus-3 shall be sealed using a pressure sensitive aluminum tape such as Rmax R-SEAL 3000 or R-SEAL Construction Tape.

# Stud Wall Construction (Siding) | 01

Sika® Rmax® Pro Select R-Matte® Plus-3 Exterior Application

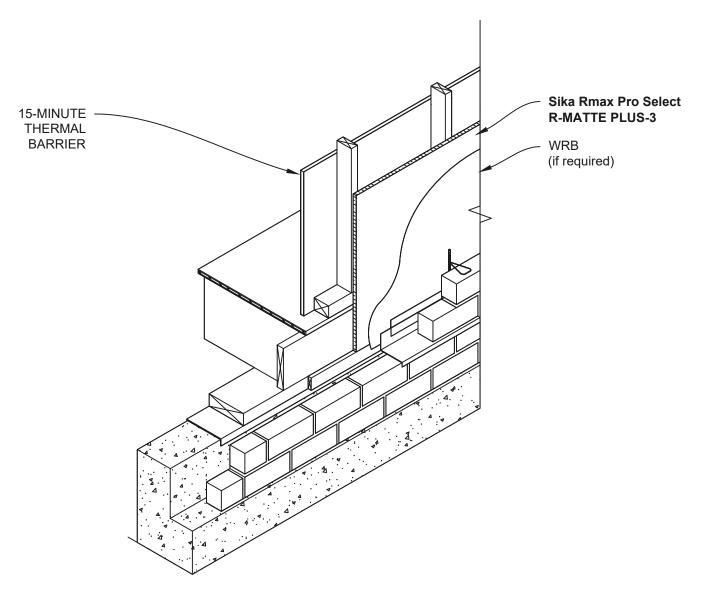
A1.00



Rmax, A Business Unit of Sika Corporation 13524 Welch Road Dallas, TX 75244 (972) 387-4500 retail.usa.sika.com/en/products/insulation

(800) 845-4455 (Eastern) (800) 527-0890 (Central) (800) 762-9462 (Western) Email: Rmax@rmax.com

Title: Sika® Rmax® Pro Select R-Matte® Plus-3 Detail Reference Data Sheet for Additional Information



- 1. Veneer shown is brick. Other veneers artificial stone and natural stone are also acceptable.
- 2. R-Matte Plus-3 panels shall be secured to the studs using bungle-head screws, galvanized roofing nails, or minimum  $\frac{3}{4}$ " cap nails, or simply cut to fit tightly between existing wall ties. Proper air space must be maintained between the face of the insulation and the veneer.
- 3. Where a separate water resistive barrier (WRB) is not included, the joints of the R-Matte Plus-3 shall be sealed using a pressure sensitive aluminum tape such as Rmax R-SEAL 3000 or R-SEAL Construction Tape.

# Stud Wall Construction (Brick Veneer) | 02

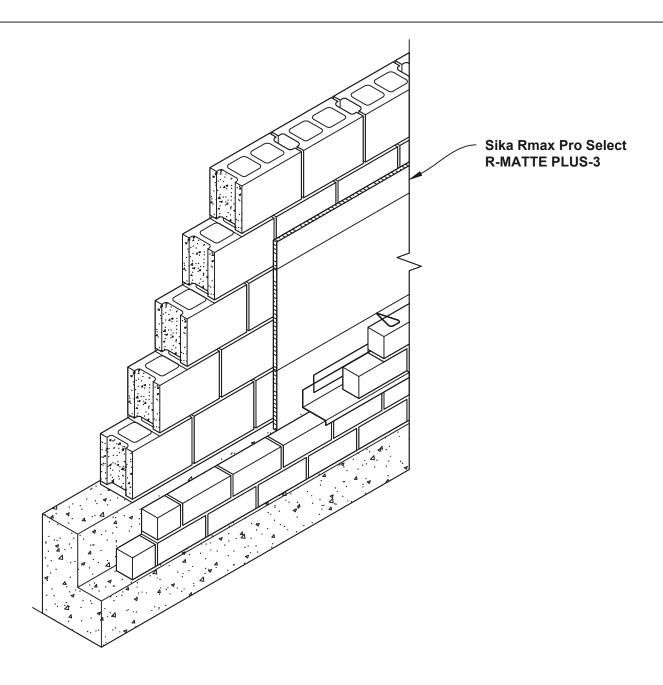
Sika® Rmax® Pro Select R-Matte® Plus-3 Exterior Application A1.00



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- 1. Veneer shown is brick. Other veneers artificial stone and natural stone are also acceptable.
- 3. Masonry/block wall shall be adequately waterproofed according to local requirements and building design.
- 4. R-Matte Plus-3 panels shall be secured to the dry face of concrete or CMU walls with a quality grade construction adhesive or simply cut to fit tightly between existing wall ties. Proper air space must be maintained between the face of the insulation and the veneer.

# Masonry Wall Construction (Veneer)

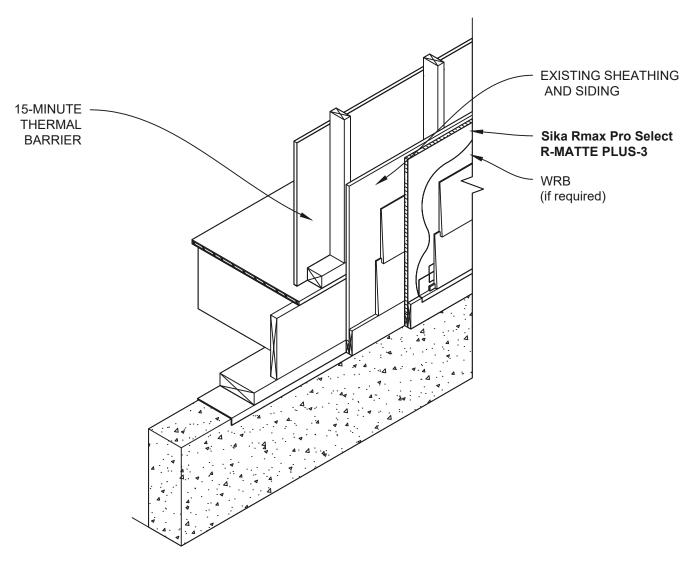


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Title: Sika® Rmax® Pro Select R-Matte® Plus-3 Detail Reference Data Sheet for Additional Information

Date: Sheet: Scale: 02/02/2024 NTS A1.00



- 1. Veneer shown is lap siding. Other veneers stucco and various siding materials, such as aluminum, vinyl, fiber cement, wood and wood based products are also acceptable. For stucco systems, the secondary barrier is required over the R-Matte Plus-3 prior to attaching the metal lathe.
- 2. R-Matte Plus-3 insulation panels shall be secured with galvanized nails of sufficient length to penetrate the old sidings, sheathings below and at least one inch into the existing wall studs. Prior to installation, ensure that the existing siding is sound and solidly attached.
- 3. Where a secondary water resistive barrier (WRB) is not included, the joints of the R-Matte Plus-3 shall be sealed using a pressure sensitive aluminum tape such as Rmax R-SEAL 3000 or R-SEAL Construction Tape.

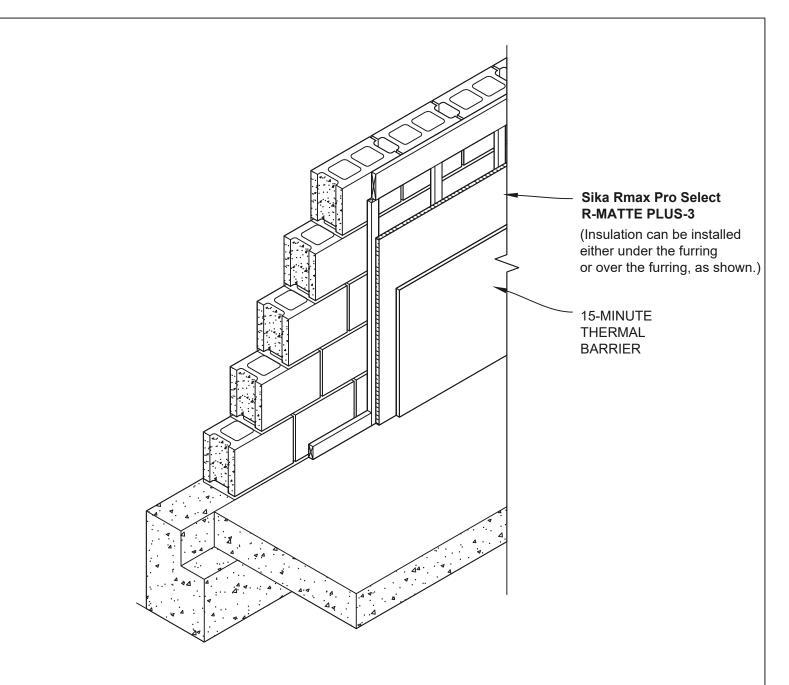
Re-Siding Construction | 04

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- 1. R-Matte Plus-3 insulation panels shall be secured to the furring using bugle-head screws, galvanized roofing nails, or minimum  $\frac{3}{4}$ " cap nails. When R-Matte Plus-3 is installed under the furring, adhere panels directly to the masonry/ brick wall.
- 2. Masonry/block wall shall be adequately waterproofed according to local requirements and building design.

Masonary Wall Construction		
ax® Pro Select R-Matte® Plus-3 Exterior Application		

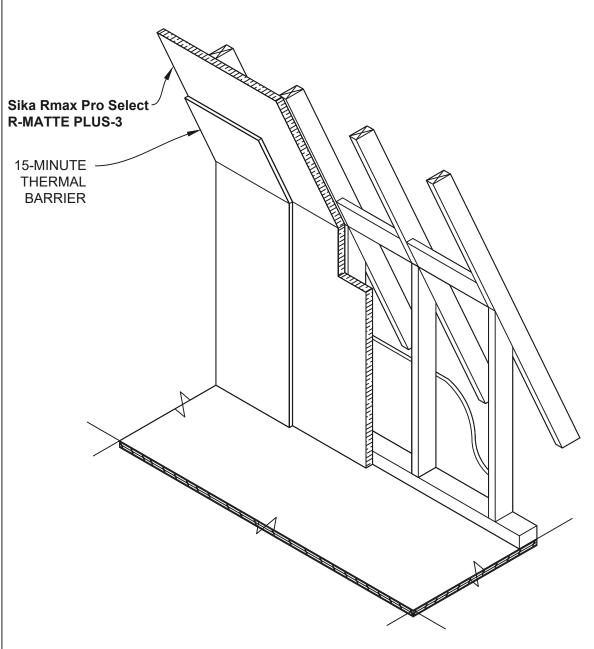
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Title: Sika® Rmax® Pro Select R-Matte® Plus-3 Detail Reference Data Sheet for Additional Information



- 1. Refer to local building codes for requirements on proper ventilation.
- 2. R-Matte Plus-3 insulation panels shall be secured to the rafters/ studs using bugle-head screws, galvanized roofing nails, or minimum <sup>3</sup> cap nails. A quality grade construction adhesive may also be used to secure the R-Matte Plus-3.

# Stud Wall & Vaulted Ceiling Construction | 06

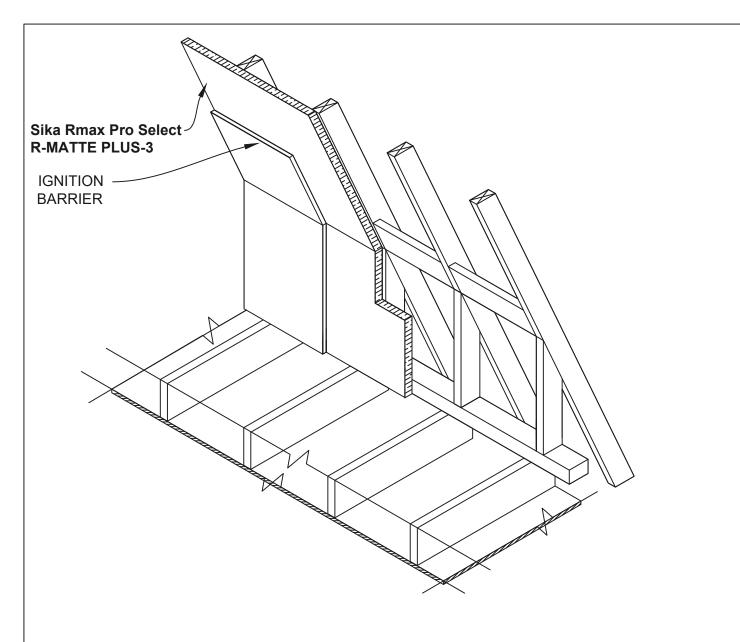


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- 1. Refer to local building codes for requirements on proper ventilation.
- 2. R-Matte Plus-3 insulation panels shall be secured to the studs/ rafters using bugle-head screws, galvanized roofing nails, or common nails driven through cap washers. A quality grade construction adhesive may also be used to secure the R-Matte Plus-3.
- 3. Where the R-Matte Plus-3 is being used as a vapor retarder, the panel joints shall be sealed using a pressure sensitive tape such as Rmax R-SEAL 3000 or R-SEAL Construction Tape. Otherwise, a secondary vapor retarder may be required per local Building Codes.

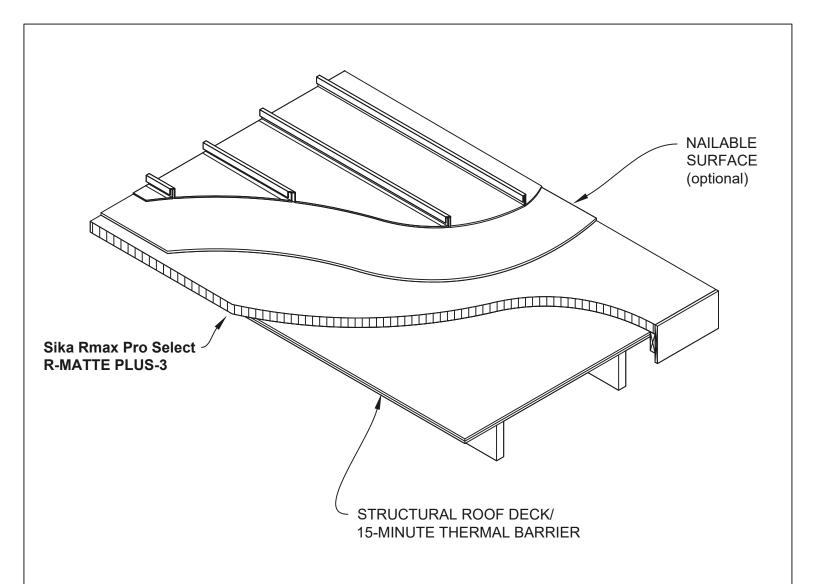
# Attic Knee Wall & Ceiling Construction | 07



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Standing Seam Metal Roof Construction | 08

Sika® Rmax® Pro Select R-Matte® Plus-3 Exterior Application



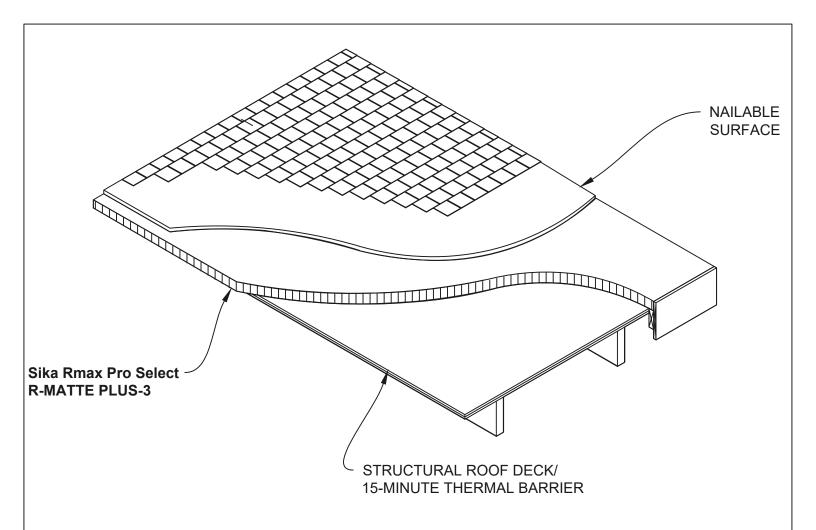
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Date: Scale: 02/02/2024 NTS

Sheet: A1.00



1. Roof cover shown is asphalt shingles. Other covers - wood shingles and concrete or clay tiles - are also acceptable. Consult roof cover manufacturer for above deck roof ventilation requirements.

Shingle Roof Construction | 09

Sika® Rmax® Pro Select R-Matte® Plus-3 Exterior Application

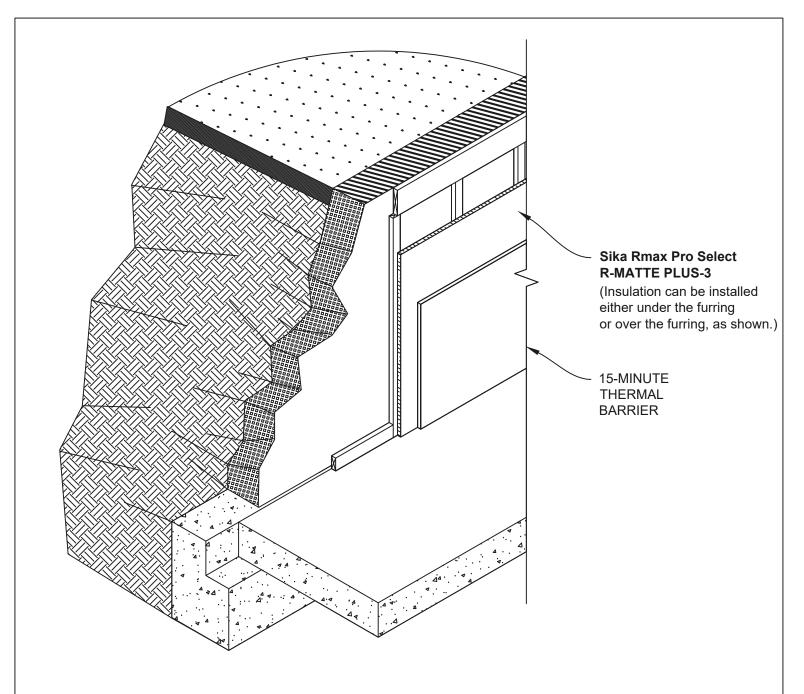
A1.00



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- 1. R-Matte Plus-3 insulation panels shall be secured to the furring using bugle-head screws, galvanized roofing nails, or minimum <sup>3</sup>" cap nails. A quality grade construction adhesive may also be used to secure the R-Matte Plus-3.
- 2. Masonry/block wall shall be adequately waterproofed according to local requirements and building design.

# Below Grade Wall Construction

Sika® Rmax® Pro Select R-Matte® Plus-3 Exterior Application

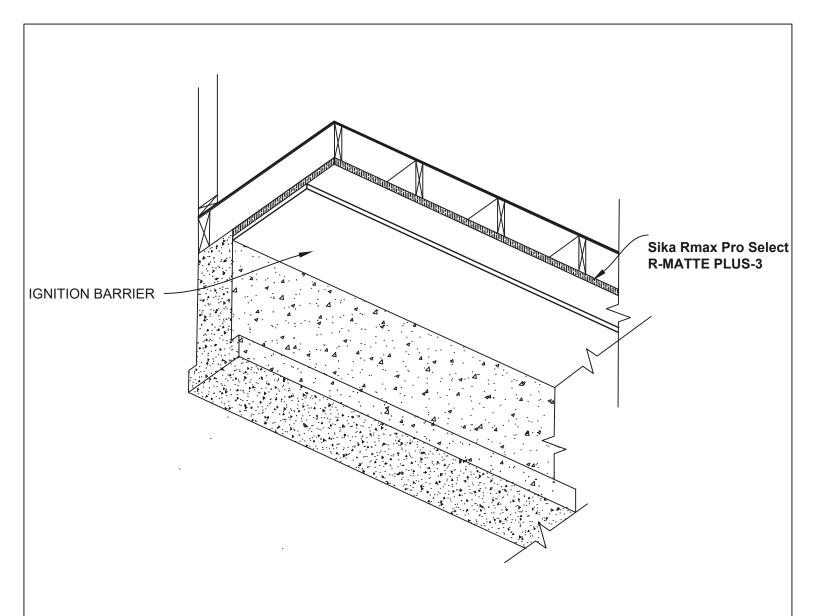
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- 1. Refer to local building codes for requirements on proper ventilation and bracing.
- 2. R-Matte Plus-3 insulation panels shall be secured to the framing using bugle-head screws, galvanized roofing nails, or minimum  $\frac{3}{4}$ " cap nails. A quality grade construction adhesive may also be used to secure the R-Matte Plus-3.

# Ceiling Crawl Space Construction | 11

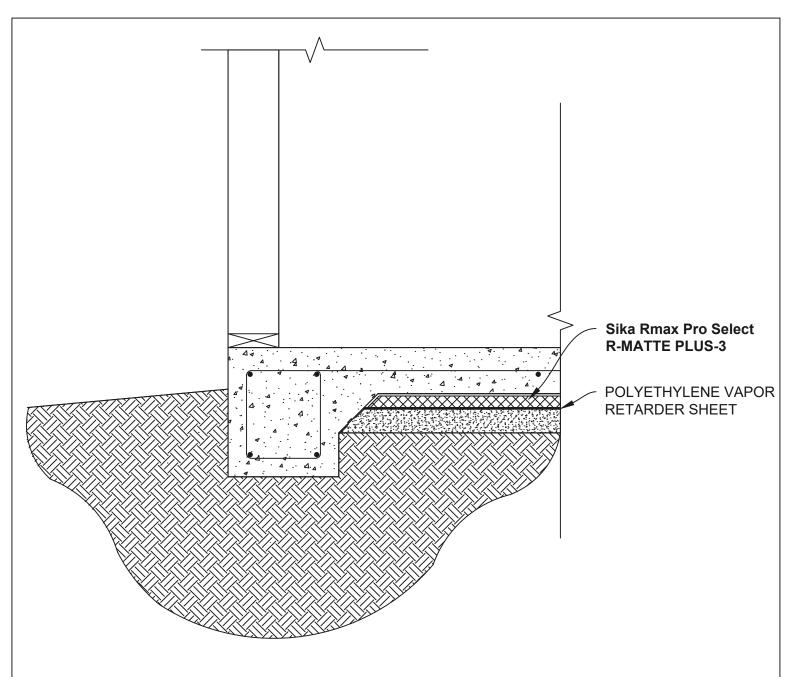


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Title: Sika® Rmax® Pro Select R-Matte® Plus-3 Detail Reference Data Sheet for Additional Information

Sheet: Date: Scale: 02/02/2024 NTS A1.00



- 1. R-Matte Plus-3 insulation panels are simply laid over the specially prepared base of crushed stone, sand or other material that is spread for leveling.
- 2. Exact placement of the polyethylene vapor barrier is up the building designer and local code requirements.

# Slab-on-Grade Construction | 12

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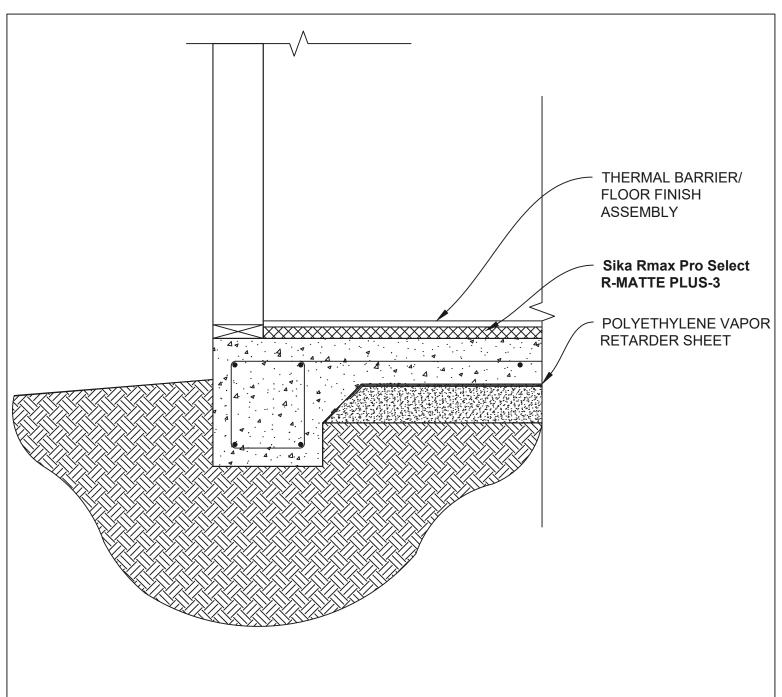
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Title: Sika® Rmax® Pro Select R-Matte® Plus-3 Detail Reference Data Sheet for Additional Information

Date: Sheet: Scale: 02/02/2024 A1.00 NTS



- 1. R-Matte Plus-3 insulation panels are simply laid over the existing slab.
- 2. Refer to local building codes for requirements on confined spaces with exposed foam plastic where applicable.

Floor Construction | 13

Sika® Rmax® Pro Select R-Matte® Plus-3 Exterior Application

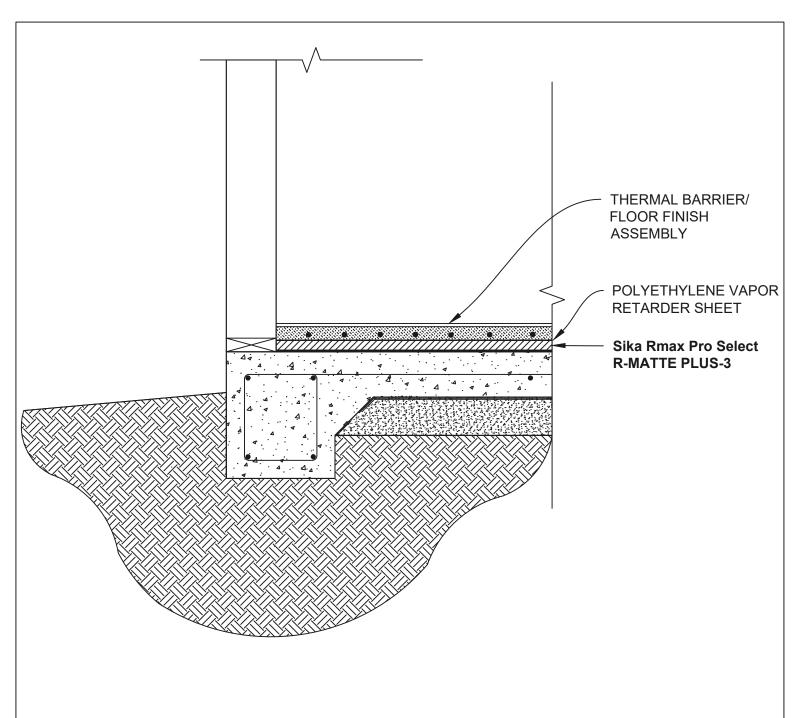
A1.00



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- 1. R-Matte Plus-3 insulation panels are simply laid over the existing slab.
- 2. Exact placement of the polyethylene vapor barrier is up the building designer and local code requirements.

# Radiant Floor Slab Construction | 14

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A1.00



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- For more information, visit www.drjcertification.org or call us at 608-310-6748
- https://up.codes/viewer/wyoming/ibc-2021/chapter/17/special-inspections-and-tests#1702
- 3 Alternative Materials, Design and Methods of Construction and Equipment: The provisions of any regulation code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by a regulation. Please review <a href="https://www.justice.gov/atr/mission and-https://www.justice.gov/atr/mission and-https://www.justice.gov/atr/mission-http
- https://up.codes/viewer/wyoming/ibc-2021/chapter/17/special-inspections-and-tests#1706:~:text=the%20design%20strengths%20and%20permissible%20stresses%20shall%20be%20established%20by%20tests%20as
- The design strengths and permissible stresses of any structural material shall conform to the specifications and methods of design of accepted engineering practice. https://up.codes/viewer/wyoming/ibc-2021/chapter/17/special-inspections-and-tests#1706:~:text=shall%20conform%20to%20the%20specifications%20and%20methods%20of%20design%20of%20accepted%20engineering%20practice
- https://up.codes/viewer/wyoming/ibc-2021/chapter/17/special-inspections-and-tests#1707.1:~:text=the%20building%20official%20shall%20accept%20duly%20authenticated%20reports%20from%20approved%20agencies
- https://up.codes/viewer/wyoming/ibc-2021/chapter/17/special-inspections-and-tests#1703.4.2
- 8 https://up.codes/viewer/wyoming/ibc-2021/chapter/2/definitions#approved\_agency
- 9 https://up.codes/viewer/wyoming/ibc-2021/chapter/2/definitions#approved\_source
- https://www.law.cornell.edu/uscode/text/18/1832 (b) Any organization that commits any offense described in subsection (a) shall be fined not more than the greater of \$5,000,000 or 3 times the value of the stolen trade secret to the organization, including expenses for research and design and other costs of reproducing the trade secret that the organization has thereby avoided. The federal government and each state have a public records act. To follow DTSA and comply state public records and trade secret legislation requires approval through ANAB ISO/IEC 17065 accredited certification bodies or approved sources. For more information, please review this website: Intellectual Property and Trade Secrets.
- https://www.nspe.org/resources/issues-and-advocacy/professional-policies-and-position-statements/regulation-professional
  AND <a href="https://apassociation.org/list-of-engineering-boards-in-each-state-archive/">https://apassociation.org/list-of-engineering-boards-in-each-state-archive/</a>
- 12 <u>https://www.cbitest.com/accreditation/</u>
- 13 https://up.codes/viewer/colorado/ibc-2021/chapter/1/scope-and-administration#104:~:text=to%20enforce%20the%20provisions%20of%20this%20code
- https://up.codes/viewer/colorado/ibc-2021/chapter/1/scope-and-administration#104.11:~:text=Where%20the%20alternative%20material%2C%20design%20or%20method%20of%20construction%20is%20not%20approved%2C%20the%20building%20official%20shall%20respond%20in%20writing%2C%20stating%20the%20reasons%20why%20the%20alternative%20was%20not%20approved AND https://up.codes/viewer/colorado/ibc-2021/chapter/1/scope-and
  - administration#105.3.1:~:text=If%20the%20application%20th%20construction%20documents%20do%20not%20conform%20to%20the%20requirements%20of%20pertinent%20laws%2C%20the%20building%20official%20shall%20reject%20such%20application%20in%20writing%2C%20stating%20the%20reasons%20therefore
- https://up.codes/viewer/colorado/ibc-2021/chapter/17/special-inspections-and-tests#1707.1:~:text=the%20building%20official%20shall%20accept%20duly%20authenticated%20reports%20from%20approved%20agencies%20in%20respect%20to%20the%20 guality%20and%20manner%20of%20use%20of%20new%20materials%20or%20assemblies%20as%20provided%20for%20in%20Section%20104.11
- https://iaf.nu/en/about-iaf
  - mla/#:~:text=it%20is%20required%20to%20recognise%20certificates%20and%20validation%20and%20verification%20statements%20issued%20by%20conformity%20assessment%20bodies%20accredited%20by%20all%20other%20signatories%20of%20the%20IAF%20MLA%2C%20with%20the%20appropriate%20scope
- 17 True for all ANAB accredited product evaluation agencies and all International Trade Agreements.
- https://www.justice.gov/crt/deprivation-rights-under-color-law AND https://www.justice.gov/atr/mission
- https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#p-3280.2(Listed%20or%20certified); https://up.codes/viewer/colorado/ibc-2021/chapter/2/definitions#listed
  AND https://up.codes/viewer/colorado/ibc-2021/chapter/2/definitions#labeled
- https://up.codes/viewer/colorado/ibc-2021/chapter/17/special-inspections-and-tests#1703.4
- https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#:~:text=All%20construction%20methods%20shall%20be%20in%20conformance%20with%20accepted%20engineering%20practices%20to%20insure%20durable%2C%20livable%2C%20and%20safe%20housing%20and%20shall%20demonstrate%20acceptable%20workmanship%20reflecting%20journeyman%20quality%20of%20work%20of%20the%20various%20trades
- https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#:~:text=The%20strength%20and%20rigidity%20of%20the%20component%20parts%20and/or%20the%20integrated%20structure%20shall%20be%20determined%20by%20engineering%20analysis%20or%20by%20suitable%20load%20tests%20to%20simulate%20the%20actual%20loads%20and%20conditions%20of%20application%20that%20occur
- <sup>23</sup> See Code of Federal Regulations (CFR) <u>Title 24 Subtitle B Chapter XX Part 3280</u> for definition.
- 24 2018 IFC Section 104 9
- <sup>25</sup> Approved is an adjective that modifies the noun after it. For example, Approved Agency means that the Agency is accepted officially as being suitable in a particular situation. This example conforms to IBC/IRC/IFC Section 201.4 where the building code authorizes sentences to have an ordinarily accepted meaning such as the context implies.
- https://up.codes/viewer/wyoming/ibc-2021/chapter/17/special-inspections-and-tests#1707.1
- Multilateral approval is true for all ANAB accredited product evaluation agencies and all International Trade Agreements.

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