ECOBASEci™
Continuous Insulation for Cladding Attachment

PRODUCT DESCRIPTION
Rmax ECOBASEci is an energy-efficient thermal insulation board composed of a closed-cell polyisocyanurate (polyiso) foam insulation with inorganic, polymer coated glass fiber mat facers bonded to 5/8 inch or 3/4 inch fire retardant treated plywood (FRTP). ECOBASEci utilizes a CFC, HCFC and HFC free blowing agent that has zero Ozone Depletion Potential (ODP) and negligible Global Warming Potential (GWP). This insulation has been tested for multiple NFPA 285 assemblies and is approved for use in exterior walls of buildings of any height, as described within the Rmax NFPA 285 Assembly Guide for ECOBASEci. ECOBASEci allows for optimum efficiency through multiple design options, ease of construction, a better building envelope and reduced energy usage. Providing a direct impact on the savings throughout the life of the building, ECOBASEci is an excellent choice for exterior commercial wall design.

COMPLIANCES
- ASTM C1289 Type V
- ASHRAE 90.1
- International Energy Conservation Code (IECC)
- International Building Code (IBC) Section 2603, Foam Plastic
- Drd 1504-04
- CA Directory of Certified Insulation Materials (License T1043)
- Tested per NFPA 285 to comply with Section 2603.5.5 of the IBC
- 1, 2, 3 or 4 hour Fire Rated Assemblies as shown in the UL Fire Resistance Directory

TYPICAL PHYSICAL PROPERTIES
Physical properties shown below are for the polyiso insulation layer only. They are based on data obtained under controlled conditions and are subject to normal manufacturing tolerances.

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density, Overall, Nominal</td>
<td>ASTM D1622</td>
<td>2.0 pcf</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>ASTM D1621</td>
<td>20 psi¹</td>
</tr>
<tr>
<td>Flame Spread, Core²</td>
<td>ASTM E84</td>
<td>75 or Less</td>
</tr>
<tr>
<td>Smoke Developed, Core²</td>
<td>ASTM E84</td>
<td>&lt; 450</td>
</tr>
<tr>
<td>Water Vapor Transmission</td>
<td>ASTM E96</td>
<td>&lt; 1.5 perm</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>ASTM C209</td>
<td>&lt; 1% Vol.</td>
</tr>
<tr>
<td>Dimensional Stability</td>
<td>ASTM D2126, 7 days, 158°F, 98% RH</td>
<td>&lt; 2% Linear Change</td>
</tr>
<tr>
<td>Service Temperatures</td>
<td></td>
<td>-40°F to +250°F</td>
</tr>
</tbody>
</table>

¹Also available in 25 psi upon request. Less than 1” is only available at 16 psi.
²Flame spread and smoke numbers are shown for comparison purposes only and are not intended to represent the performance of ECOBASEci and related components under actual fire conditions.

PRODUCT BENEFITS
- Part of the overall design solution
- Installed continuously to reduce thermal bridging
- Meets R-value requirements with a thinner profile
- Reduces energy costs
- Creates a surface for cladding attachment
- Reduces labor costs
- Offers tax credits, where applicable
- Contributes to LEED credits

To help achieve additional LEED credits, the wood components in this product can be ordered to comply with Forest Stewardship Council®'s (FSC®) Chain of Custody requirements.

[Forest Stewardship Council logo]

2016-08
ECOBASEci

THERMAL PROPERTIES / PRODUCT DATA

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

<table>
<thead>
<tr>
<th>Nominal Foam Thickness (inches)</th>
<th>5/8&quot; FRTP¹</th>
<th>3/4&quot; FRTP¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nominal Thickness (inches)</td>
<td>Thermal Value (°F•ft²•hr/Btu)</td>
</tr>
<tr>
<td>0.75</td>
<td>1.375</td>
<td>5.2</td>
</tr>
<tr>
<td>1.0</td>
<td>1.625</td>
<td>6.7</td>
</tr>
<tr>
<td>1.5</td>
<td>2.125</td>
<td>9.7</td>
</tr>
<tr>
<td>2.0</td>
<td>2.625</td>
<td>12.8</td>
</tr>
<tr>
<td>2.5</td>
<td>3.125</td>
<td>16.0</td>
</tr>
<tr>
<td>3.0</td>
<td>3.625</td>
<td>19.2</td>
</tr>
<tr>
<td>3.5</td>
<td>4.125</td>
<td>22.4</td>
</tr>
<tr>
<td>4.0</td>
<td>4.625</td>
<td>25.7</td>
</tr>
<tr>
<td>4.5</td>
<td>5.125</td>
<td>29.0</td>
</tr>
</tbody>
</table>

¹Includes Fire Retardant Treated Plywood
²Thermal values are determined by using ASTM C518 test method at 75°F mean temperature on material conditioned according to PIMA Technical Bulletin No. 101.

A wide variety of insulation thicknesses, manufactured on a made to order basis, are available from Rmax to more closely match insulation values (thermal resistances) to project requirements. Visit www.rmax.com for a complete list of thicknesses and packaging information.

APPLICATION / INSTALLATION

General - ECOBASEci is applied to wood or metal framing with the wood to the exterior in order to provide a continuous layer of thermal insulation and a suitable substrate for the mechanical attachment of many different kinds of cladding systems available in the market today.

ECOBASEci is engineered to allow for normal expansion of the plywood without gapping the insulation layer. The polyiso layer is manufactured to be slightly longer and wider than the plywood so that the polyiso extends 1/16" to 1/8" beyond the plywood on two adjacent sides. See below for illustration and proper orientation between boards. When cutting is necessary, make cuts on flush edges to maintain expansion allowance and ensure installation of cut boards is consistent with orientation shown below.
Protection - ECOBASEci is not intended to be left exposed to the elements. As is common with any application of wood within the building envelope, avoid exposure to precipitation during shipping, storage and installation. Apply a water-resistant barrier (WRB) over installed ECOBASEci as soon as practical to avoid direct rain on the panel. Panels that get wet should be allowed to dry before sealing the building envelope or replaced altogether. When the wall design calls for the location of the WRB on the interior side of the ECOBASEci or when long-term exposure to weather is expected, the order must specify that exterior grade wood be used.

Securement - Rmax Nailboard Fasteners, TruFast SIPLD, or common screws can be used to fasten ECOBASEci to steel studs. The fastening pattern is dependent on the fastener type, stud type and spacing, cladding weight, wood substrate and composite panel thickness. Refer to DrJ TER 1504-04 for fastening tables and additional guidelines.

For steel framing, the use of wing tip screws is recommended when the insulation layer is 3.5” or less to prevent the wood from walking up the screw and forcing the screw into the stud before it has drilled through. As an alternative, use a screw with a thread length that is less than the thickness of the insulation layer.

Corners - When installing ECOBASEci at inside corners, it may be necessary to install an additional stud to provide support where fastening is required beyond existing framing.

For outside corners, it is acceptable to have the insulation of one wall extend beyond the framing so that the edge of the board lines up flush with the exterior surface of the insulation on the adjacent wall. In this case, flashing should be used to wrap the corner and cover the exposed foam prior to installing the water-resistant barrier. When the design requires that the nailing surface extend completely into the corner, it is common practice to cut the foam layer back to allow the adjacent panels to fit. This can be accomplished by simply cutting the foam of panels on both sides of the corner back to a 45 degree angle. Another method is to cut and remove the full thickness of foam a distance equal to the full thickness of the composite panel on all panels of one side of the corner creating a rabbeted edge with the wood and foam. The panels installed on the adjacent wall should fit snug into the recessed foam.

LIMITATIONS
ECOBASEci is not recommended, nor warranted, for use as a commercial roof insulation. Consult Rmax Sales for suitable commercial roof insulation products.

ECOBASEci is not intended for use on surfaces subject to continuous or intermittent immersion in water. ECOBASEci is not a structural panel; stud walls insulated with ECOBASEci must be properly braced for lateral loads according to the requirements of local Building Codes.

WARNING
DO NOT leave ECOBASEci exposed to the interior. 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 ECOBASEci must be separated from the interior of the building by a thermal barrier such as a minimum of 1/2 inch gypsum wallboard. Consult your local Building Official for specific governing codes and requirements.

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.
For warranties, limitations and conditions refer to Rmax Sales Policy and applicable warranties. All documents are located at www.rmax.com. For technical and sales support, email rmax@rmax.com or call (800) 527-0890.

Proudly Made and Engineered in the U.S.A.