ISOCAST™ R Polyisocyanurate Insulation

1. PRODUCT NAME
ISOCAST™ R Polyisocyanurate Insulation

2. MANUFACTURER
The Dow Chemical Company
Dow Building Solutions
200 Larkin Center, 1605 Joseph Drive
Midland, MI 48674
1-866-583-BLUE (2583)
Fax 1-989-832-1465
dowbuildingsolutions.com

3. PRODUCT DESCRIPTION
ISOCAST™ R insulation combines a patented high-performance polyisocyanurate foam core with a trilaminate aluminum/poly/kraft facer on both sides to achieve strength, high R-value* and moisture resistance.

Basic Use
ISOCAST™ R insulation is designed for use in concrete panel walls (precast, tilt-up or poured in place), where it is sandwiched between two layers of concrete with connectors holding together the finished panel. The polyisocyanurate core provides superior insulation, while the facer makes the board virtually moisture resistant. Because it has no exposed metal facings, ISOCAST R will not corrode or react chemically with the concrete in sandwich panel applications.

4. TECHNICAL DATA
Applicable Standards
ISOCAST™ R insulation meets ASTM C1289 – Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board, Type I. Applicable standards include:

- C203 – Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
- C209 – Standard Test Methods for Cellulosic Fiber Insulating Board
- D2126 – Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging

Application and system code requirements vary. Contact your Dow sales representative or local authorities for state and local building code requirements and acceptances.

TYPICAL PHYSICAL PROPERTIES
ISOCAST™ R insulation exhibits the properties and characteristics indicated in Table 1 when tested as represented.

ENVIRONMENTAL DATA
ISOCAST™ R insulation is manufactured with hydrocarbon blowing agents, which have no ozone depletion potential.

FIRE information ISOCAST™ R insulation is combustible; protect from high heat sources. Local building codes may require a protective or thermal barrier. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400.

*R means resistance to heat flow. The higher the R-value, the greater the insulating power. R-value determined by ASTM C518.

<table>
<thead>
<tr>
<th>Property and Test method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Resistance(1), per inch, ASTM C518 @ 75°F mean temp, ft²•°F/Btu, R-value, min.</td>
<td>6.5</td>
</tr>
<tr>
<td>Compressive Strength(2), ASTM D1621, psi, min.</td>
<td>25</td>
</tr>
<tr>
<td>Flexural Strength, ASTM C203, psi, min.</td>
<td>40</td>
</tr>
<tr>
<td>Water Absorption, ASTM C209, % by volume, max.</td>
<td>0.1</td>
</tr>
<tr>
<td>Water Vapor Permeance, ASTM E96, perms, max.</td>
<td>&lt;0.03</td>
</tr>
<tr>
<td>Maximum Use Temperature, °F</td>
<td>190</td>
</tr>
</tbody>
</table>

\(1\) R-values are consistent with criteria of ASTM C578 and the requirements of the FTC R-value rule (16 CFR Part 460).

\(2\) Vertical compressive strength is measured at 10 percent deformation or at yield, whichever occurs first.
NOTICE: No freedom from any infringement of patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where Dow is represented. The claims made may not have been approved for use in all countries or regions. Dow assumes no obligation or liability for the information in this document. References to "Dow" or the "Company" mean the Dow legal entity selling the products to Customer unless otherwise expressly noted. NO EXPRESS WARRANTIES ARE GIVEN EXCEPT FOR ANY APPLICABLE WRITTEN WARRANTIES SPECIFICALLY PROVIDED BY DOW. ALL IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

5. INSTALLATION
Boards of ISOCAST™ R insulation are lightweight and easy to handle, cut and install. In concrete panel applications, the insulation boards are sandwiched between two layers of concrete and the assembly is held together with connectors.

6. AVAILABILITY
ISOCAST™ R insulation is distributed through an extensive network. For more information, call 1-800-232-2436.

7. WARRANTY

8. MAINTENANCE
Not applicable.

9. TECHNICAL SERVICES
Dow can provide technical information regarding the physical properties of ISOCAST™ R insulation. Technical personnel are available to assist with any insulation project. For technical assistance, call 1-866-583-BLUE (2583).

10. FILING SYSTEMS
- www.dowbuildingsolutions.com

STYROFOAM™ Brand Spray Polyurethane Foam contains isocyanate, hydrofluorocarbon blowing agent and polyol. Read all the instructions and (M)SDS carefully before use. Wear protective clothing (including long sleeves), gloves, goggles and proper respiratory protection. Supplied air or an approved air-purifying respirator equipped with an organic vapor sorbent and a P100 particulate filter is required to maintain exposure levels below ACGIH, OSHA, WEEU or other applicable limits. Provide adequate ventilation. Contents under pressure. STYROFOAM™ Brand SPF should be installed by a trained SPF applicator.

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier including Dow can give assurance that mold will not develop in any specific system.

The Dow Chemical Company
Dow Building Solutions
200 Larkin • Midland, MI 48674
dowbuildingsolutions.com

US
Technical Information: 1-866-583-BLUE (2583)
Sales Information: 1-800-232-2436

©Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow.
Printed in U.S.A.