

PROSEAL ECO™

PRODUCT INFORMATION

USA

1. PRODUCT NAME



ICYNENE ProSeal Eco™ is a trademark for medium density, closed cell, 100% water blown polyurethane spray foam insulation. ICYNENE ProSeal Eco™ is a 2lb/ft³ density insulation and air barrier material.

2. MANUFACTURER

ICYNENE ProSeal Eco™ is made on site from liquid components supplied by Icynene Inc. Installation and on-site manufacturing are supplied by independent Icynene Licensed Dealers.

3. PRODUCT DESCRIPTION

ICYNENE ProSeal Eco™ is 100% water blown, closed cell insulation and air barrier material. It insulates and air seals at the same time. Convective air movement inside cavities is virtually eliminated, providing more uniform temperatures throughout the building.

The result is superior quality construction, with higher comfort levels and lower heating and cooling costs. Energy savings vary depending on building design, location, etc.

ICYNENE ProSeal Eco™ expands to fill cavities within the building envelope. It doesn't have to be cut or fitted into the space.

ICYNENE ProSeal Eco™ is applied by spraying liquid components onto an open wall, crawl space, ceiling surface or cathedral ceiling cavities. There it expands in a matter of seconds to provide a foam blanket of millions of tiny closed cells, filling building cavities and sealing cracks and crevices in the process.

4. TECHNICAL DATA

(Based on Core Samples)

Contains Recycled Content

Thermal Performance

Thermal Resistance (ASTM C518)

Insulation contribution at thickness:

1" = R-4.9 (°F.ft².hr/Btu)

3.5" = R-17 (°F.ft².hr/Btu)

4" = R-19 (°F.ft².hr/Btu)

ICYNENE ProSeal Eco™ provides improved performance over traditional air permeable insulations at equivalent R-values. ICYNENE ProSeal Eco™ is not subject to loss of R-value due to windy conditions, settling, convection or air infiltration; nor is it prone to traditional moisture intrusion via convective air flow or diffusion.

Air Permeance/Air Barrier /Air Seal

Icynene ProSeal Eco™ fills any shaped cavity, and adheres to most construction materials, creating assemblies with very low air-permeance. Additional interior or exterior air infiltration protection within the building is subject to applicable codes.

Air permeability of core foam:

ASTM E2178 data

- 0.00049 L/(s·m²) @ 75 Pa for 1.4 inch thickness.

In all buildings insulated and air sealed with Icynene ProSeal Eco™, adequate mechanical ventilation/air supply should be provided for optimum IAQ (Indoor Air Quality). See ASHRAE Standard 62 – Ventilation for Acceptable Indoor Air Quality.

Water Vapor Permeance

ICYNENE ProSeal Eco™ is a Class II vapor retarder which reduces the amount of moisture that can diffuse through the insulation.

Water vapor transmission properties: ASTM E96 (Desiccant Method):

< 1.0 Perms @ 2.4"

Water Absorption Properties

The absorption of liquid water is very low.

Water Absorption, % by volume

- ASTM D2842: 0.69%

Fungi Resistance

ASTM C1338

No Fungus growth

Burn Characteristics

ICYNENE ProSeal Eco™ is a combustible product and is therefore, consumed by flame, but will not sustain flame upon removal of the flame source. It leaves a charcoal residue. It will not melt or drip. ICYNENE ProSeal Eco™ is subject to all applicable

National/State and County building codes regarding fire prevention.

Requirements for Thermal Barrier and Ignition Barrier coverings must be met as per the applicable building code having jurisdiction.

Passed NFPA 285 and ASTM E119 1, 2 and 3 hour fire-rated wall assembly testing.

ICYNENE ProSeal Eco™ is code compliant for IBC construction types I, II, III IV & V and IRC construction.

Surface Burning Characteristics @ 4" - ASTM E84*:

| | |
|-------------------|------|
| Flame Spread | ≤20 |
| Smoke Development | ≤450 |

*Flame spread rating not intended to reflect hazards under actual fire conditions.





NFPA 286: Thermal Barrier Testing

ProSeal Eco™ can be applied in wall and ceiling cavities with thicknesses up to 6" and 10" respectively. It must be covered with 1/2" of gypsum board or DC-315 intumescent paint coating @ 22 wet mils.

Vented Attic:

ProSeal Eco™ can be applied in the floor of the attic with thicknesses up to 11.25 inches and it can be left uncovered.

Unvented Attic:

ProSeal Eco™ can be applied to the underside of the roof deck in thicknesses up to 14 inches and coated with DC-315 intumescent paint coating @ 6 wet mils.

Environmental / Health / Safety

Icynene ProSeal Eco™ is 100% water-blown and therefore contains no ozone depleting blowing agents. It is also PBDE-free.

ICYNENE ProSeal Eco™ is CHPS Section 01350 compliant for offices and classrooms. It is listed as such in the Collaborative for High Performance Schools (CHPS) Low Emitting Materials (LEM) Table. The reaction used to create ICYNENE ProSeal Eco™ generates Carbon Dioxide to expand the foam. Carbon Dioxide has a very low Global Warming Potential (GWP of 1). Not to be installed within (3") of heat emitting devices, where the temperature is in excess of 180°F, in accordance with applicable codes.

5. INSTALLATIONS

ICYNENE ProSeal Eco™ is installed by a network of independent Icynene Licensed Dealers trained in the installation of ICYNENE ProSeal Eco™. Installation is generally independent of environmental conditions. ICYNENE ProSeal Eco™ can be installed in hot, humid or freezing conditions. Surface preparation is generally not necessary. Within seconds, the foaming process is complete.

For information on Health and Safety, refer to the Spray Polyurethane Foam Alliance Health and Safety guidance documents at www.spraypolyurethane.com.



6. AVAILABILITY

Contact Icynene at 1-800-758-7325 or visit our website at www.icynene.com.

7. WARRANTY

WHEN INSTALLED PROPERLY IN ACCORDANCE WITH INSTRUCTIONS, THE COMPANY WARRANTS THAT THE PROPERTIES OF THE PRODUCT MEET PRODUCT SPECIFICATIONS AS OUTLINED IN THIS PRODUCT INFORMATION SHEET. SAVE AND EXCEPT ANY EXCLUSIONS REFERENCED IN THE WARRANTY.

8. TECHNICAL

Icynene Licensed Dealers and Icynene Inc. provide support on both technical and regulatory issues. Architectural specifications in CSI 3-Part format and design details are available at our website at www.icynene.com.

9. REGULATORY

ESR-3493 has been issued by the ICC-ES for ICYNENE ProSeal Eco™. Code approvals are outlined in the ESR-3493 document.

For regulatory issues concerning ICYNENE ProSeal Eco™, contact Icynene at 1-800-758-7325.

10. RELATED REFERENCES

All physical properties were determined through testing by accredited third party agencies. Icynene Inc. reserves the right to change specifications in its effort of continuous improvement. Please confirm that technical data literature is current.

11. PACKAGING AND STORAGE

Packaging

Package - 55 US gallon, closed top steel drums

Component 'A' - 550 lb. per drum. Base Seal® MDI

Component 'B' - 500 lb. per drum

ICYNENE ProSeal Eco™ - Resin

Storage

ICYNENE ProSeal Eco™ (Component A) and (Component B) ideally should be stored between 60 °F and 85 °F.

Component A should be protected from freezing.

12. INSTALLATION SPECIFICATIONS

Refer to the ICYNENE ProSeal Eco™ Technical Data Sheet.

Telephone: 905.363.4040
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SL-225-01 Updated August 2013



HEALTH & SAFETY

CERTIFIED ICYNENE SPRAYER

Icynene products have an excellent health and safety record spanning more than 350,000 insulation projects over more than 25 years. Nonetheless, safe handling practices during and immediately following installation are required to eliminate the possibility of health effects from exposure to isocyanates. Asthma, other lung problems, and irritation of the nose and throat can result from inhalation of isocyanates. Direct contact with the skin and eyes can result in irritation. Different individuals will react differently to the same exposures; some will be more sensitive than others. Severe asthma attacks have been reported in some sensitized workers exposed repeatedly to isocyanates while not wearing proper protective equipment. Some reports indicate a reaction and sensitization can occur following a single, sustained occupational exposure to isocyanates without proper protective equipment above the OSHA permissible exposure limit. But sensitization might not occur immediately in some individuals. Consistent use of personal proper protective equipment to prevent exposure during spraying and within the 24-hour-period after spraying is completed is critical to eliminating the health hazard. Once sensitization has occurred, a worker might not be able to work safely with spray foam insulation again.

Sprayers, sprayer helpers, and anyone else present during spraying or within 24 hours after spraying is complete: You must wear proper Personal Protective Equipment (PPE) at all times during spray, including full-body-coverage, chemical-protective clothing and a NIOSH-certified respirator with fresh air supply. While spraying and for 24 hours after spraying is completed, no one must be allowed within 50 feet of the sprayed foam without wearing this type of PPE at all times. Adequate active, negative pressure ventilation (exhaust fans) of the job site must be in place during spray and for 24 hours after spray is complete.

Independent studies indicate that with 24 hours' active ventilation after spraying is completed, Icynene spray foam insulation is safely cured.



SL-505-01 Updated January 2013



HEALTH & SAFETY

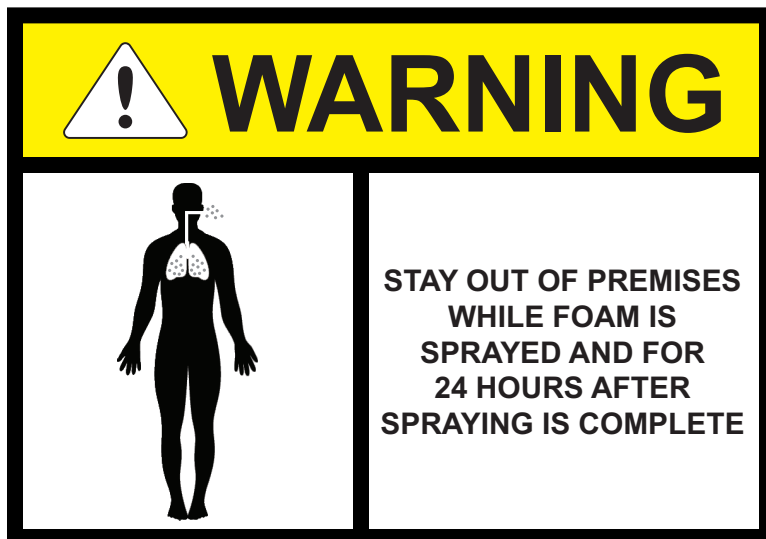
HOMEOWNERS

COMMITTED TO THE RESPONSIBLE USE OF SPRAY FOAM CHEMISTRY FOR OVER 25 YEARS.

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Everyone (other than Icynene-certified spray technicians) must vacate the job site, remaining completely out of the building or at least 50 feet away, while the spray is applied and for at least 24 hours after spraying is completed to allow active ventilation of the job site and to ensure the foam chemicals are completely cured. *No exceptions.*

Independent studies indicate that with 24 hours' active ventilation after spraying is completed, Icynene spray foam insulation is safely cured.



SL-506-02 Updated March 2013

