MD-C-200™

PRODUCT INFORMATION

USA

1. PRODUCT NAME

ICYNENE MD-C-200™

ICYNENE MD-C-200™ is a trademark for medium density, closed cell polyurethane spray foam insulation. ICYNENE MD-C-200™ is a 2.0 lb/ ft3 density insulation and air barrier material.

2. MANUFACTURER

ICYNENE MD-C-200™ 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 MD-C-200™ is a 2.0 lb/ft3, 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 MD-C-200™ expands to fill cavities within the building envelope. It doesn't have to be cut or fitted into the space.

ICYNENE MD-C-200™ is applied by spraying the foam into 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)

Thermal Performance
Thermal Resistance (ASTM C518)

Aged Thermal Resistance
1" aged 90 days @ 140 o F,
R – 6.5 hr.ft2 -°F)/BTU

1.5" to 11.25" thickness
Based on 4" aged 180 days @ 70° F
R – 6.75 (hr.ft2 -°F)/BTU per inch

ICYNENE MD-C-200™ provides improved performance over traditional air permeable insulations at equivalent R-values. ICYNENE MD-C-200™ 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 MD-C-200™ 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 E283 data
< 0.02 L/S-m2 @ 75 Pa for 1 in thickness.

In all buildings insulated and air sealed with Icynene MD-C-200™, adequate mechanical ventilation/air supply should be provided for optimum IAQ (Indoor Air Quality). See ASHRAE Guidelines.

Water Vapor Permeance
ICYNENE MD-C-200™ 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):
0.9 Perms @ 1.5"

Water Absorption Properties
ICYNENE MD-C-200™ meets FEMA criteria for resisting water absorption.

Fungi Resistance
ASTM C1338
No Fungus growth

Burn Characteristics
ICYNENE MD-C-200™ 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. It should be applied in accordance with applicable building codes.

Passed NFPA 285 and ASTM E119 60 minute rated wall assembly testing:

ICYNENE MD-C-200™ is code compliant for IBC construction types I, II, III IV & V and IRC construction.

Surface Burning Characteristics @ 4" - ASTM E84*:

Flame Spread	≤25
Smoke Development	≤450

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

ICYNENE®
THE EVOLUTION OF INSULATION™

CERTIFIED APPLICATOR
ISLAND DIVERSIFIED
Phone: 631.953.6990
Fax: 631.953.6991
www.idthermal.com
WWW.islanddiversified.com
1191 Scott Avenue Calverton, New York. 11933

NFPA 286: Thermal Barrier Testing

MD-C-200™ can be applied in wall and ceiling cavities with thicknesses up to 11 1/4 in. It must be covered with 1/2" of gypsum board or DC-315 intumescent paint coating @ 22 wet mils.

Vented Attic:
MD-C-200™ can be applied in the floor of the attic with thicknesses up to 11 ¼ inches and it can be left uncovered.

Unvented Attic:
MD-C-200™ can be applied to the underside of the roof deck in thicknesses up to 11 ¼ inches and it can be left bare.

MD-C-200™ can be applied on walls in thicknesses up to 11 ¼ inches and it can be left bare.

Environmental / Health / Safety
Icynene MD-C-200™ contains no PBDE's.

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 MD-C-200™ is installed by a network of independent Icynene Licensed Dealers.

Formulations are available for all climate zones and altitudes.

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 SPECIFICATION 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.

9. REGULATORY

ESR-3199 has been issued by the ICC-ES for ICYNENE MD-C-200™. Code approvals are outlined in the ESR-3199 document.

ICYNENE MD-C-200™ can be applied in attic and crawl space applications without the requirement for an ignition barrier cover.

DC-315 intumescent coating has been approved as a thermal barrier over ICYNENE MD-C-200™ with a coating weight of 22 wet mils.

For regulatory issues concerning ICYNENE MD-C-200™, 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'	520 lb. net weight per drum. Polyisocyanate MDI
Component 'B'	480 lb. net weight per drum. ICYNENE MD-C-200™ - Resin

Storage

ICYNENE MD-C-200™ (Component A) and (Component B) ideally should be stored between 60 º F and 85 º F.

Component A should be protected from freezing.

12. INSTALLATION SPECIFICATIONS

Refer to the ICYNENE MD-C-200™ Technical Data Sheet.

ICYNENE®
THE EVOLUTION OF INSULATION™

Telephone: 905.363.4040
Toll Free: 800.758.7325
www.Icynene.com
inquiry@icynene.com

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 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.

ICYNENE®
THE EVOLUTION OF INSULATION™

SL-505-01 Updated January 2013

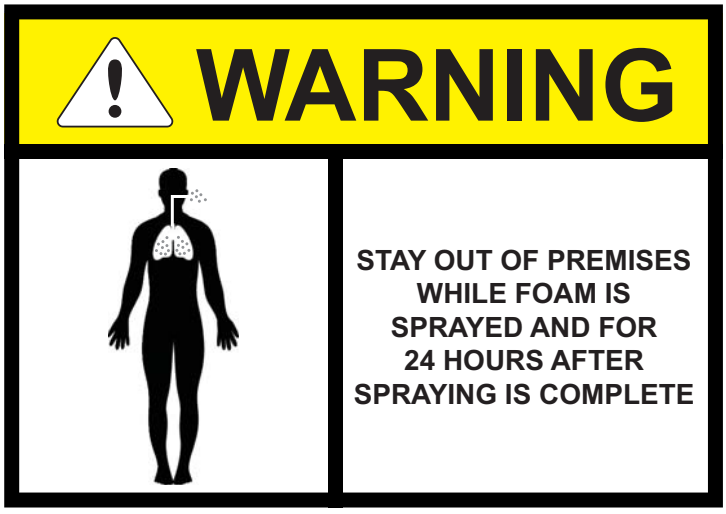
HEALTH & SAFETY
HOMEOWNERS

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

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.

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.



ICYNENE®
THE EVOLUTION OF INSULATION™

SL-506-02 Updated March 2013