

THERMAL INSULATION AND AIR BARRIER CCRR-1123

Specification Sections: 07 21 19 Foamed-in-Place Insulation, 07 27 00 Spray Polyurethane Foam Air Barriers

PRODUCT DESCRIPTION

Icynene OC No-Mix™, is a spray-in-place low density, open celled, flexible, nominal 0.5 lbs/ft³ density, 100% water-blown polyurethane foam insulation. It is an ultra-low VOC product allowing for 1 hour job site re-entry and 4 hour job site re-occupancy at applicable ventilation rates. OC No-Mix™ can be sprayed in a wide temperature range for applications, making it suitable for any climate. It is capable of being installed in un-vented attics without an ignition barrier or a coating. No mixing required, saving valuable preparation time. It provides energy savings and improves building durability, while significantly reducing unmanaged moisture and air infiltration.

Icynene OC No-Mix™ has an industry leading yield of 18,000 board feet (annual average). It is suitable for buildings in accordance with the IRC and the IBC including Type I, II, III, IV and V construction. The product is for use as a thermal insulation and air barrier in:

- wall cavities
- floor assemblies
- ceiling assemblies
- roof assemblies (interior)
- attics (vented and unvented)
- crawl spaces (vented and unvented)

PROPERTIES OF CURED FOAM

Characteristic	Test Method	Value
Core Density	ASTM D 1622	0.5 lb/ft ³
Color		Amber
Aged Thermal Resistance	ASTM C 518	R-3.9 at 1 inch R-13 at 3.5 inches
Air Permeance at 3.5"	ASTM E 2178	0.02 L/s.m ²
Water Vapor Permeance	ASTM E 96	22 perms at 1 inch 15 perms at 2 inches
Dimensional Stability at 28 days (Volume Change)	ASTM D 2126	3% at 160°F and 100% RH
Open Cell Content	ASTM D 2856	>94%

BURN CHARACTERISTICS

Surface Burning at 5"		Class A
Flame Spread Index	ASTM E 84	≤25
Smoke Development		≤450
Commercial Fire Resistance	NFPA 285	Assembly Passed*
Commercial Fire Resistance	ASTM E 119	1 Hour Rating*

DC 315, TPR2 F10E, No Burn Plus ThB	NFPA 286	> 15 minutes
Wall & Ceiling Application Maximum Thickness	NFPA 286	Walls - No Limit Ceiling - No Limit
Limited Access Attic Walls & Roof Un-coated Thickness	End Use Configuration*	Walls - 15" Roof - 15"
Limited Access Crawl Space Walls & Floors Thickness	ACC377 Appendix X	Walls - 5.5" Roof - 11.5"
Attic Floor Uncoated Thickness	ASTM E 970	11.25"

* consult Icynene-Lapolla Engineering Department for details

- Icynene OC No-Mix™ must be covered with ½" of gypsum board or approved thermal barrier.
- Icynene OC No-Mix™ 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 as required by the authority having jurisdiction.

UNVENTED ATTICS

Icynene OC No-Mix™ can be applied to the underside of the roof deck to a maximum of 15 inches and be left bare if its thickness is a minimum of 3 inches at roof decking. Consult Icynene-Lapolla Engineering Department for details.

ACOUSTICAL PROPERTIES

Performance in a 38 x 89 mm (2 x 4") wood stud wall:

STC Sound Transmission Class - 41

Hertz Frequency	125	250	500	1000	2000	4000
ASTM E90	20	31	41	47	46	55

NRC Noise Reduction Coeff. - .10

Hertz Frequency	125	250	500	1000	2000	4000
ASTM C423	.46	.16	.05	.10	.13	.13

AIR BARRIER/ MECHANICAL VENTILATION

- Icynene OC No-Mix™ fills any shaped cavity, and adheres to most construction materials, creating assemblies with very low air permeance.
- Additional interior or exterior air infiltration protection is subject to applicable codes.
- All buildings insulated and air sealed with Icynene OC No-Mix™ must be designed to include adequate mechanical ventilation/ out-door air supply for optimum IAQ (Indoor Air Quality).

For mechanical ventilation see ASHRAE Standard 62 – Ventilation for Acceptable Indoor Air Quality or any other acceptable good engineering practice.

WATER ABSORPTION PROPERTIES

- Water can be forced into the foam under pressure because it is open celled.
- Water will drain by gravity, given favorable drying potential, and upon drying all chemical and physical properties are fully restored.

ELECTRICAL WIRING

- Icynene OC No-Mix™ has been evaluated with energized 14/3 and 12/2 residential wiring (max. 122°F/50°C).
- It is chemically compatible with typical electrical wiring coverings.
- For any insulation of older knob and tube wiring, please reference local electrical code.

PLASTIC PIPING

- Icynene OC No-Mix™ is compatible in direct contact with the following piping systems, as per Paschal Engineering Study:
 - CPVC
 - ABS
 - PVC
 - PP-R

ENVIRONMENTAL AND HEALTH

- Icynene OC No-Mix™ is 100% water-blown and therefore has zero ozone-depletion potential.
- The reaction used to create Icynene OC No-Mix™ generates carbon dioxide to expand the foam. Icynene OC No-Mix™ has the lowest Global Warming Potential (GWP of 1) value for foam insulation products.
- Icynene OC No-Mix™ is PBDE-free.

INSTALLATION

- Icynene OC No-Mix™ is installed by a network of Licensed Dealers, trained in its installation.
- Not intended for exterior use. Not to be installed within 3" (76 mm) of heat emitting devices or where the temperature is in excess of 180°F (maximum service temperature), as per ASTM C411 or in accordance with applicable codes.
- Installation is generally independent of environmental conditions.
- Icynene OC No-Mix™ has excellent adhesion to a wide variety of substrates including common construction materials.
- It can be installed in hot, humid or freezing conditions. Minimum substrate temperature for application is 20°F (-7°C).
- Surface preparation is generally not necessary.
- Within seconds, the foaming process is complete.

HANDLING AND SAFETY

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

AVAILABILITY

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

WARRANTY

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

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.

REGULATORY

- CCRR-1123 has been issued by the Intertek for Icynene OC No-Mix™.
- Icynene OC No-Mix™ has been tested as per the requirements of the International Code Council Evaluation Service's AC377 Acceptance Criteria (April 2016).
- For regulatory issues concerning Icynene OC No-Mix™ contact Icynene-Lapolla at 800-758-7325.

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.

PACKAGING AND STORAGE

- Packaging - 55 US gallon, steel drums
- Component 'A' - 520 lb. per drum. Base Seal® MDI
- Component 'B' - 480 lb. per drum. Icynene OC No-Mix™ - Resin
- Icynene OC No-Mix™ (Component A) and (Component B) ideally should be stored between 50°F (12°C) and 90°F (30°C)
- Component 'A' should be protected from freezing
- Shelf life is 6 months



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Health & Safety Certified Sprayer

Icynene spray foam insulation products have an excellent health and safety record spanning more than 425,000 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 1 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 1 hour** after spraying is complete: You must ventilate at levels prescribed on this page and 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 1 hour** 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 2 hours** after spray is complete to allow for re-occupancy.

For installations of low VOC products Icynene Classic Ultra, Icynene OC No-Mix, Icynene ProSeal, Icynene ProSeal LE and Icynene ProSeal HFO in the United States only, re-entry of the job site is permitted after 1 hour** and re-occupancy of the job site is permitted after 2 hours** (4 hours for Icynene OC No-Mix) provided that ventilation rates are followed as recommended on this page.

Independent studies and third party toxicologist verification indicates that when the prescribed ventilation rates and periods are followed, Icynene spray foam insulation is safely cured.

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WARNING

WEAR PROPER PERSONAL PROTECTIVE EQUIPMENT AT ALL TIMES ON PREMISES DURING SPRAYING & FOR AT LEAST 1 HOUR* AFTER SPRAYING IS COMPLETE.

*FOR APPLICATIONS OF LOW VOC ICYNENE CLASSIC ULTRA, ICYNENE PROSEAL, ICYNENE PROSEAL LE AND ICYNENE PROSEAL HFO ONLY WITH VENTILATION AS SPECIFIED ON THIS PAGE.



RE-ENTRY AND RE-OCCUPANCY PERIODS

Times based upon ventilating during and after a spray application.

Ventilation Rate (Air Changes per Hour)	Re-entry period for sprayers, helpers, informed trade workers and contractors	Re-occupancy period for all others
At 0.3 ACH	24 hours	24 hours
At 1.0 ACH	12 hours*	24 hours
At 10.0 ACH	4 hours*	24 hours
At 10.0 ACH For Icynene Classic Ultra	1 hour**	2 hours**
At 18.0 ACH For Icynene ProSeal HFO	1 hour**	2 hours**
At 20.0 ACH For Icynene OC No-Mix	1 hour***	4 hours***
At 40.0 ACH	1 hour**	2 hours**

* Twelve (12) and four (4) hour re-entry for trades applies to all Icynene products sold in the United States.

** One (1) hour re-entry and two (2) hour re-occupancy applies only to low VOC products:

- Icynene Classic Ultra at 10 ACH
- Icynene ProSeal HFO at 18 ACH
- Icynene ProSeal / Icynene ProSeal LE at 40 ACH

*** One (1) hour re-entry and four (4) hour re-occupancy applies only to Icynene OC No-Mix at 20 ACH.

Health & Safety Homeowners

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

Icynene spray foam insulation products have an excellent health and safety record spanning more than 425,000 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 2 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 and third party toxicologist verification indicates that when the prescribed ventilation rates and periods are followed, Icynene spray foam insulation is safely cured.

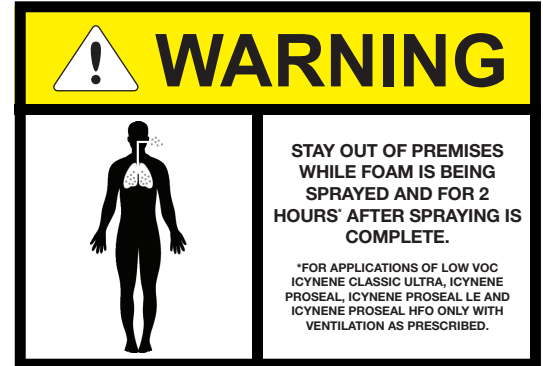
*** For installations of low VOC products Icynene ProSeal and Icynene ProSeal LE in the United States only, re-occupancy of the job site is permitted after 2 hours provided that the rate of air exchange during spraying and for 2 hours thereafter equals or exceeds 40 Air Changes per Hour (ACH). For applications of low VOC Icynene ProSeal HFO in the United States only, re-occupancy is permitted after 2 hours provided rate of air exchange during and for 2 hours thereafter equals or exceeds 18 Air Changes per Hour. For applications of low VOC Icynene Classic Ultra in the United States only, re-occupancy is permitted after 1 hour provided rate of air exchange during and for 2 hours thereafter equals or exceeds 10 Air Changes per Hour. For applications of Icynene OC No-Mix in the United States only, re-occupancy is permitted after 4 hours provided rate of air exchange during and for 4 hours thereafter equals or exceeds 20 Air Change per Hour.**



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CLIENT ACKNOWLEDGEMENT

NAME:

BUILDING ADDRESS:

CITY:

STATE / PROVINCE:

ZIP / POSTAL CODE:

I have read and understand the information on this document. I understand that I must vacate the premises during spraying and for at least 2 hours* after spraying has been completed.

SIGNATURE:

DATE:

Email completed form to hsagreements@icynene.com or fax 1-888-340-2552.

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