



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

Huntsman Building Solutions OC No-Mix™, is a spray-in-place low density, open celled, flexible, nominal 0.5 lbs/ft³ density, 100% water-blown polyurethane foam in-sulation. 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 unvented 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.

Huntsman Building Solutions 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

• roof assemblies (interior)

• floor assemblies

• attics (vented and unvented)

• ceiling assemblies

• 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 inches:		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, No-Burn Plus ThB Thermal Barrier	NFPA 286	> 15 minutes			
Wall & Ceiling Application Maximum Thickness	NFPA 286	Walls- No Limit Ceiling- No Limit			
Limited Access Attic Walls & Roof Uncoated Thickness	End Use Configuration*	Walls - 15" Roof - 15"			
Limited Access Crawl Space Walls & Floors Uncoated Thickness	ACC377 Appendix X	Walls - 5.5" Roof - 11.5"			
Attic Floor Uncoated Thickness	ASTM E 970	11.25"			

^{*}consult Huntsman Building Solutions Engineering Department for details.

- Huntsman Building Solutions OC No-Mix[™] must be covered with ½" of gypsum board or approved thermal barrier.
- Huntsman Building Solutions 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

Huntsman Building Solutions 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 Huntsman Building Solutions 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 E 90	20	31	41	47	46	55

NRC Noise Reduction Coeff10						
Hertz Frequency	125	250	500	1000	2000	4000
ASTM C 423	.46	.16	.05	.10	.13	.13

AIR BARRIER/ MECHANICAL VENTILATION

- Huntsman Building Solutions 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 Huntsman Building Solutions OC No-Mix[™] must be designed to include adequate mechanical ventilation/outdoor 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

- Huntsman Building Solutions 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

- Huntsman Building Solutions 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

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

INSTALLATION

- Huntsman Building Solutions 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.
- Huntsman Building Solutions 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 Huntsman Building Solutions at 817-640-4900 or visit our website at www.huntsmanbuildingsolutions.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

Huntsman Building Solutions Licensed Dealers and Huntsman Building Solutions 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.huntsmanbuildingsolutions.com.

REGULATORY

- CCRR-1123 has been issued by Intertek for Huntsman Building Solutions OC No-Mix™.
- Huntsman Building Solutions 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 Huntsman Building Solutions OC No-Mix™ contact Huntsman Building Solutions at 817-640-4900.

RELATED REFERENCES

All physical properties were determined through testing by accredited third party agencies. Huntsman Building Solutions 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, closed top steel drums
- Component 'A' 520 lb. per drum. Base Seal® MDI
- Component 'B' 480 lb. per drum. Huntsman Building Solutions OC No-Mix™ Resin
- Huntsman Building Solutions 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.

