



## Technical Data Sheet - USA

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### ICYNENE MD-C-200™

ICYNENE MD-C-200™ is a closed-cell medium density spray applied polyurethane foam insulation and air barrier material. The insulation is applied at a nominal density of 2 lb/cu ft. MD-C-200™ is used as a thermal insulation material in buildings in accordance with the IRC and the IBC in buildings of Type V construction and may be applicable to Types I, II, III and IV construction. The insulation is for use in wall cavities, floor assemblies, ceiling assemblies and attics and crawl spaces.

#### PHYSICAL PROPERTIES

Characteristic	Test Method		Result	AC 377 Requirement
Core Density	ASTM D1622		2.17 pcf	As Reported
Aged - 1" (aged 90 days) @ 140°F	ASTM C518		6.5 @ 1"	As Reported
Aged - 4" (aged 180 days) @ 70°F	ASTM C518		27.0 @ 4"	As Reported
Aged - 1" based on 4" thickness	ASTM C518		6.75 @ 1"	As Reported
Max. Thickness per Pass			2 inches	
Open Cell Content	ASTM D2856		2.90%	
Water Vapor Permeance	ASTM E96		0.884 perms @ 1.5"	< 1 perm
Air Permeance	ASTM E283		1" min. thickness	< 0.02 L/s.m2
Dim. Stability -20°C, 7 days	ASTM D2126	VOL %	1%	15 % max.
Dim. Stability 80°C, 7 days	ASTM D2126	VOL %	1%	15% max.
Dim. St. 70°C, 97% RH, 7 days	ASTM D2126	VOL %	6%	15% max.
Compressive Strength	ASTM D1621		28 lb/in2	15 lb/in2 min.
Tensile Strength	ASTM D1623		46 lb/in2	15 lb/in2 min.
Surface Burning FS @ 4"	ASTM E84		< 25	≤ 75
Surface Burning SDI @ 4"	ASTM E84		< 450	≤ 450
Commercial Fire Resistance	NFPA 285		Assembly Passed	
Commercial Fire Resistance	ASTM E119		1 Hour Rating	
DC-315 Thermal Barrier	NFPA 286	22 wet mils	> 15 minutes	15 minutes
Attic & Crawl Space walls & roof	NFPA 286 X	12" thickness	no coating required	
Wall & Ceiling application	NFPA 286		11 1/4" max.	
Fire Propagation of exterior wall	NFPA 285		Passed	
Hourly rated wall assembly	ASTM E119		60 minutes	
Fungus Testing	ASTM C1338		no growth	

**Disclaimer:** Data presented in this document is based on tests and information, which we believe to be reliable. This document is provided for information purposes only and does not constitute a warranty, expressed or implied, including any warranty of merchantability or fitness. This data is relied upon at the sole discretion and judgement of user/reviewer.

It is the installers responsibility to ensure that the use and installation of this product complies with all applicable national and local building codes.

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## ICYNENE MD-C-200™

### LIQUID COMPONENTS PROPERTIES

Property	Isocyanate	Resin
Color	Brown	Light Brown
Viscosity @ 25° C	200 cps	1400 cps
Shelf Life*	12 months	6 months
Mixing ratio (volume)	100	100

(\* ) Resin and Isocyanate should be stored at 60° - 85° F

See MSDS for more information

### RECOMMENDED PROCESSING CONDITIONS

Open B-side drums carefully

When the MD-C-200™ has been charged into the system, check all screens before spraying

Pre-heat drum temperatures: 50 - 80° F

Spray temperatures, primary heaters and hose heat: 120 - 130° F

Recommended Chamber size: 01 round (AR 4242)

Pressure setting: 1400 - 1500 Psi

Spray Gun distance from substrate: 12" - 24"

Can be sprayed in either a horizontal or vertical motion, but need to overlap and build material to get desired thickness

Distance from substrate and spray motion will vary between cavity or flat open surface spray application

**Maximum Thickness Per Pass                    2"**

### REACTIVITY PROFILE

Cream time	1-2 sec
Tack Free Time	4-7 sec

### HEALTH & SAFETY CONSIDERATIONS

#### Handling Recommendations

Use personal protective equipment (see MSDS)

Avoid all contact with skin and eyes

Do not inhale the vapors

Do not store in conditions outside of the recommended parameters

In case of a spill / leak, see MSDS.

For more information, please consult the MSDS

#### Application Safety

While spraying, always work with adequate ventilation.

**Protective gloves, overalls, eye protection, safety shoes, hard hats and a properly fitting breathing apparatus supplying fresh air must be worn by the installers (and others working within 25 feet of the installers) at all times while spraying.**

Persons with known respiratory allergies must avoid exposure to the Isocyanate component.

If inhalation of the vapors occurs, remove the person from the working area to breathe fresh air and if breathing is still difficult, call a physician.

Avoid contact with eyes, skin and clothing.

In case of eye contact, immediately flush with large amounts of water for at least 15 minutes and call a physician immediately.

In case of skin contact, wash area with soap and water.

Wash any clothing that has come into contact with the Iso or resin before reuse.

**Do not apply in excess of 2' (50mm) per pass due to product exotherm, to do so may a fire hazard.**

**Wait until 1st layer cools before applying a second layer / lift over an initial layer / lift**

#### Fire hazard

Fires involving either component may be extinguished with carbon dioxide, dry chemical or an inert gas. Application of large quantities of chemical spray is recommended for spill fires.

Personnel fighting the fire must be equipped with self-contained breathing apparatus.