

TECHNICAL DATA SHEET

H2Foam Forte (MDR-210)

PRODUCT CHARACTERISTICS

Construction Products: In-situ formed sprayed rigid polyurethane (PUR) foam products as covered by the scope of standard EN 14315-1

H2Foam Forte (MDR-210) 100% water-blown polyurethane foam insulation manufactured by Icynene Inc. Suitable for insulation and sealing walls, wall cavities, ceilings, attics, floors, basements and foundations. Can be sprayed onto: concrete and masonry, wood, gypsum board and particle board, pre-painted substrates, glass, polyvinyl chloride, acrylonitrile butadiene styrene (abs), polypropylene and polyethylene, asphalt, modified bitumen membrane, for more information, look Icynene H2Foam Forte (MDR-210) installation instructions.

FOAM PROPERTIES

Characteristic	Result	Units
Water absorption	Short water absorption by partial immersion ≤ 0,08	kg/m ²
Thermal conductivity	0,032	λD= W/mK
Water vapour permeability	32	μ
Density	39,6	kg/m ³
Dimensional stability (length/width/thickness) %, 48 h: - temp. +70 °C RH. 90% - temp. +23 °C RH. 75% - temp. – 30 °C	Length change: -0.1 Width change: -0.0 Thickness change: +0.15	%
Compressive strength	179	kPa
Release of dangerous substances (VOC)	A+	N/A
Reaction to fire(insulation)	E	Class
Air permeance	0.00049	L/s.m _Q at 3,56 cm

All tests are carried out in accordance with the standards specified in EN 14315-1-2013 and ASTM.

PUEN14315-1-DS(TH)4-CCC4-MU32-CT3(25)-GT10(25)-TFT11(25)-FRC40(25)-CS(10\Y)150-W0,08

PHYSICAL AND CHEMICAL PROPERTIES

Component:	A	B
Physical state:	Liquid	Liquid
Color:	Brown	Dark brown liquid - Opaque
Odor:	Slight musty	Mild ammonia
Relative density:	1.23	1.2
Flash point:	>150°C	N/A
Dynamic viscosity:	N/A	≥400 mPa·s at 25°C

RESIN CHARACTERISTICS

Characteristic	Result	Test method
pH:	11	AS-method
Specific Gravity:	1.2 g/ml	Pycnometer
Acid Number:	N/A	AS-method

STORAGE AND USAGE

H2Foam Forte (MDR-210) - Component A and Component B ideally should be stored between 15°C and 30°. Component A should be protected from freezing. Shelf life is 6 months. Before the works are mixing, for 20 minutes. Mix paddle and mixer at low speed. Do not store material on rigs other than what is required for current application needs. Material left inside of rigs can easily exceed these recommended temperatures, especially in warmer months. This excessive heat will degrade the Component B (Resin) material and shorten its usable shelf life. Do not store components in open drums. If material transporting was in freezing conditions, store it in room temperature for minimum 24 hours to get material proper condition. Do not use any additional heaters to heat up material during storage.

HEALTH AND SAFETY

- ✓ First AID KIT and Water station should be available in the truck
- ✓ In case of spills refer to MSDS
- ✓ For Homeowners

Icynene spray foam insulation products have an excellent health and safety record spanning. Nonetheless, safe handling practices during and immediately following installation are required to eliminate the possibility of health effects from exposure to isocyanates. Everyone (other than Icynene-certified spray technicians) must vacate the job site, remaining completely out of the building or at least 15 meters away, while the spray is applied and for at least 2 hours* after spraying is completed. It is necessary to allow active ventilation of the job site and to ensure the foam chemicals are completely cured. No exceptions.

- ✓ For Certified Sprayer

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. Sprayers helpers, and anyone else present during spraying or within 1 hour** after spraying is complete: You must ventilate at 40ACH 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 15 meters of the sprayed foam without wearing this type of PPE at all times.

For full information, please refer to chapter 4 of Icynene installation instruction manual.

✓ Ventilation

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 40.0 ACH	1 hour**	2 hours**

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

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

EXCEPTION: For installations of low VOC products.

reentry is permitted after 1 hour**

re-occupancy of the job site is permitted after 2 hours**

provided that ventilation rates are followed as recommended on this page.

Number of air changes per hour (ACH) can be calculated using the following formula:

$$ACH = \frac{\text{Fan Power in l/s} * 3,6}{\text{Room Volume in m}^3 2a}$$

If the number of ACH is not sufficient, a bigger fan or perhaps multiple fans may be used.

PACKAGE

The components are supplied in barrels with capacity of 200 l.

Component A – 249 kg

Component B – 226 kg

OTHER INFORMATION

All physicochemical properties were determined by testing in accredited laboratories. Icynene Europe reserve the right to change specifications to continuously improve the product.