



# H2Foam Lite E

## TECHNICAL DATA SHEET

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

H2Foam Lite E is a spray-in-situ low density, open celled, flexible, 100% water-blown polyurethane foam insulation. The product is for use as a thermal insulation and air barrier in roofs, wall cavities, floor assemblies, ceiling assemblies, attics (vented and unvented), crawl spaces (vented and unvented).

Can be sprayed onto concrete and masonry, wood, gypsum board and particle board, steel, membrane.

For more information, look H2Foam Lite E installation instructions.

### FOAM PROPERTIES

PHYSICAL PROPERTIES		
EN 1602	Apparent density	7 – 9 kg/m <sup>3</sup>
EN 12667	Thermal conductivity	0,037 W/m.K
EN 1609	Water permeability	W0,3
EN 12086	Water vapor transmission	MU4,4
VOC	Release of dangerous substances	A+
EN 1604	Dimensional Stability	DS(TH)4

FIRE TEST RESULTS		
EN 13501-1+A1	Reaction to fire	Class E

REACTIVITY PROFILE		
Cream Time	Rise time	Height
4 – 5 seconds	14 – 16 seconds	43 – 49 cm

## CHEMICAL PROPERTIES

LIQUID COMPONENT PROPERTIES*		
PROPERTY	A-PMDI ISOCYANATE	H2Foam Lite E RESIN
Colour	Brown	White
Viscosity @ 25°C	200 MPa s	700cP @25C
Specific Gravity	1.24 kg/dm <sup>3</sup>	1.1 g/ml
Shelf Life of unopened drum properly stored	12 months	6 months
Storage Temperature	15 - 30°C	15 - 30°C
Mixing Ratio (volume)	1:1	1:1

## PROCESSING CONDITIONS

RECOMMENDED PROCESSING CONDITIONS*	
Initial Primary Heater Setpoint Temperature	48 - 71°C
Initial Hose Heat Setpoint Temperature	48 - 71°C
Initial Processing Setpoint Pressure	1000-1500 PSI
Substrate & Ambient Temperature (No humidity on the surface of the substrate)	> -15°C
Moisture Content of timber substrate	≤19%
Moisture Content of Concrete	Concrete must be cured, dry and free of dust and form release agents.

\*Foam application temperatures and pressures can vary widely depending on temperature, humidity, elevation, substrate, equipment and other factors. While processing, the applicator must continuously observe the characteristics of the sprayed foam and adjust processing temperatures and pressures to maintain proper cell structure, adhesion, cohesion and general foam quality. It is the sole responsibility of the applicator to process and apply H2Foam Lite E within specification.

Equipment must be capable of delivering the proper ratio (1:1 by volume) of polymeric isocyanate (PMDI) and polyol blend at adequate temperatures and spray pressures. Substrate must be at least -15 degrees, with best processing results when ambient humidity is below 80%. Substrate must also be free of moisture (dew or frost), grease, oil, solvents and other materials that would adversely affect adhesion of the polyurethane foam.

## STORAGE AND USAGE

H2Foam Lite E component A and component B should be stored between 15C – 30C. Component A should be protected from freezing. The shelf life of component B is 6 months, component A is 12 months.

Before spraying, the H2Foam Lite E Component B must be mixed with a paddle firstly then a pneumatic mixer constantly during the application. The material temperatures in the drums need to be 27-35 C. this is achieved by re-circulating the material through the heaters on the proportioner back into the drums. Heater jackets with temperature control can also be used to help with heating the drums.

Do not store material on rigs other than what is required for the current application needs. Material left inside rigs can easily exceed this recommended temperature in the warmer months. The excessive heat will degrade the component B (resin) material and shorten its usable shelf life. Do not store material in open drums.

If the material was transported in freezing conditions, store it in room temperature for a minimum of 24 hours to get proper material condition. Do not attempt to heat up drum during storage.

## HEALTH AND SAFETY

HBS spray foam insulation products have an excellent health and safety record.

Every rig should have a first aid kit with eyes wash station and the MSDS to refer to if any spills occur.

Safe use and handling practices during and immediately following installation are required to eliminate the possibility of health effects from exposure to isocyanates. Everyone other than the trained installers should vacate the site, remaining out of the building or at least 15 meters away while the spraying is being completed and for 24 hours after spraying has finished. It is necessary to allow active ventilation of the site to ensure the chemicals are completely cured. No exceptions!

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 2h after spraying is complete. You **MUST** ventilate at 40ACH and **MUST** wear approved Personal Protective Equipment (PPE) at all time during spray, including full body coveralls, chemical protective clothing and a certified respirator with fresh air supply while spraying and 2h after spraying has been completed. No one is allowed within 15 meters of the sprayed foam without wearing this type of PPE.

## RE-ENTRY AND RE-OCCUPANCY PERIODS

Times based upon ventilation during and after spray application:

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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

Number of air changes can be calculated using the following formula :

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

If the number of ACH is not sufficient a bigger fan or 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