HUNTSMAN
BUILDING SOLUTIONS

HEATLOK EZ

TECHNICAL DATA SHEET

Heatlok® EZ is a two component, HFO blown closed cell, spray applied, rigid polyurethane foam system covered by the scope of standard EN 14315-1. The product is used as a thermal insulation, air barrier and vapor barrier or retarder depending on the thickness applied. The product can be sprayed onto concrete, masonry, wood, metals, gypsum board and particle board.

For more information, look at the HBS Heatlok EZ installation instructions.

FOAM PROPERTIES

PHYSICAL PROPERTIES		
EN 1602	**Apparent density**	**36 - 40 kg/m³**
EN 12667	**Thermal Resistance (R-value) Thermal conductivity**	**d ≤ 80 mm: λ = 26 mW/m.K** **d > 80 mm: λ = 25 mW/m.K**
EN 1609	**Water permeability**	**W0,3**
EN 12 086	**Water vapour permeability**	**MU41**
EN 1604	**Dimensional Stability**	**NPD**
EN 1605	**Deformation under specified compressive load and temperature conditions**	**DLT(1)5**
EN 826	**Compressive Strength**	**CS(10\Y)150**
VOC	**Release of dangerous substances**	**A+**
EN ISO 4590	**Closed cells content**	**CCC4**

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

REACTIVITY PROFILE			
Cream Time	**Gel Time**	**Tack Free Time**	**End of Rise**
3 - 6 seconds	**9 - 11 seconds**	**16 – 20 seconds**	**16 – 20 seconds**

CHEMICAL PROPERTIES

LIQUID COMPONENT PROPERTIES*		
PROPERTY	**A-PMDI ISOCYANATE**	**HEATLOK EZ RESIN**
Color	**Brown**	**brown**
Viscosity @ 25°C	**ca. 200 mPas**	ca. 400 mPas
Density @ 25°C	**ca. 1.23 g/cm³**	ca. 1,20 g/cm3
Specific Gravity	**1.24 kg/dm³**	ca. 1,20 g/cm3
Shelf Life of unopened drum properly stored	**12 months**	**6 months**
Storage Temperature	**15- 30 °C**	**15 - 25 °C**
Mixing Ratio (volume)	**1:1**	**1:1**
RECYCLED & RENEWABLE CONTENT		
Recyclable Content		19%
Renewable Content		6%

PROCESSING CONDITIONS

RECOMMENDED PROCESSING CONDITIONS*	
Initial Primary Heater Setpoint Temperature	**42 – 52 °C**
Initial Hose Heat Setpoint Temperature	**42 – 52 °C**
Initial Processing Setpoint Pressure	**85 - 95 bar**
Substrate & Ambient Temperature (No humidity on the surface of the substrate)	**> -5 °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 Heatlok EZ within specification.

RECOMMENDED MAXIMUM PASS THICKNESSES	
Maximum Pass	**50 mm**

General Requirements: 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 -5 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. Applicators should limit the application of this product to no more than a thickness of 50mm per pass (after expansion) to avoid fire hazards (including spontaneous combustion) resulting from excessive heat generation. If subsequent passes are needed, applicators should wait until the temperature of the foam surface has dropped below 38°C to allow any reaction heat to dissipate from the prior applications before attempting to re-apply the product.

STORAGE AND USAGE

Heatlok EZ component A should be stored between 15°C – 30°C and component B should be stored between 15°C – 25°C. The shelf life of component B is 6 months, component A is 12 months.

Do not store material on rigs other then 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 the blowing agent will gas out rendering the material useless.

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 SAFTEY

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

Every rig should have a first aid kit with eye 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 24 hours 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 24 hours 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

Time based upon ventilation during and after spray application : 24h at 40 ACH.

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

$$ACH = \frac{Fan\ Power\ in\ l/s\ *\ 3{,}6}{Room\ Volume\ in\ \mathrm{m3}}$$

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 – 225 kg