

ICYNENE[®] / 55 XPRESS

Huntsman Building Solutions Icynene Xpress 55 is a two component, open cell, spray-applied semi-rigid polyurethane foam system. This low-density system offers excellent adhesion to various substrate and also excellent cohesion between layers. HBS Icynene Xpress 55 complies with the intent of the International Code Council's residential and commercial building codes for spray polyurethane foam plastic insulation. It also complies with the AC-377 Appendix X and can be installed in attics and crawl spaces without an ignition barrier.

PHYSICAL PROPERTIES			
ASTM D 1622	Density	0.51-0.57 lb/ft ³	8.1 – 9.1 kg/m ³
ASTM C 518	Aged Thermal Resistance (R-value @ 1 inch)	3.71 ft ² h°F/BTU	0.61 Km ² /W
	Aged Thermal Resistance (R-value @ 3.5 inch)	13 ft ² h°F/BTU and 2.3 Km ² /W	
ASTM E 96	Water Vapor Permeance @ 3.5"	19.5 perms	1114 ng/Pa•s•m ²
CA Spec 01350	VOC Emissions Standard	Compliant	
ASTM D 1621	Compressive Strength	2.2 psi	15.2 kPa
ASTM D 1623	Tensile Strength	1.89 psi	12.5 kPa

FIRE TEST RESULTS		
ASTM E 84	Surface Burning Characteristics Flame Spread Index Smoke Developed	Class I 15 450
NFPA 286 AC377 Appendix X	Ignition Barrier - Compliant with IBC and IRC, and ICC-ES AC-377 Appendix X, for use in attics and crawls spaces without an prescriptive ignition barrier or intumescent coating.	Pass
NFPA 286	Thermal Barrier - Compliant with the IBC and IRC, as an interior finish without a prescriptive 15 minute thermal barrier with DC 315 at 30 wet mils.	Pass
ASTM D 1929	Ignition Properties (self-ignition temperature)	721°F (383°C)
UL Greenguard Certification	Pass	

LIQUID COMPONENT PROPERTIES		
PROPERTY	A-PMDI ISOCYANATE	ICYNENE XPRESS 55 RESIN
Color	Brown	Blue
Viscosity @ 77°F (25°C)	180 – 220 cps	Coming Soon
Specific Gravity	1.24	1.22
Shelf Life of unopened drum properly stored	12 months	6 months
Storage Temperature	50 – 100°F (10 – 38°C)	50 - 77°F (10 - 21°C)
Mixing Ratio (volume)	1:1	1:1

*See SDS for more information.

REACTIVITY PROFILE

Cream Time 0 – 1 seconds	Gel Time 3 – 5 seconds	Tack Free Time 6 – 7 seconds	End of Rise 6 – 7 seconds
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RECOMMENDED PROCESSING PARAMETERS*

Initial Primary Heater A-Side (ISO) Setpoint**	125° - 145°F
Initial Hose Heat Setpoint**	125° - 145°F
Initial Primary Heater B-Side (Resin) Setpoint**	125° - 145°F
Initial Recirculating Setpoint	90° - 100°F
Initial Processing Setpoint Pressure	1100 – 1400 PSI
Drum Temperature During Processing	90° - 100°F
Drum Temperature During Storage	50° - 77°F
Substrate & Ambient Temperature	23° - 120°F
Moisture Content of 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 Icynene Xpress 55 within specification.

**It may be necessary to go outside of the recommended processing parameters or split temps due to ambient temps and material viscosity.

RECOMMENDED MAXIMUM PASS

4" maximum lifts.*

*For optimal results, apply this product in 4" passes. Allow each pass to complete the end of rise before applying additional passes.

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 above dew point, 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.

Huntsman Building Solutions Icynene Xpress 55 must be separated from the interior of the building by an approved thermal barrier or an approved finish material equivalent to a thermal barrier in accordance with applicable codes. This product must not be used when the continuous service temperature of the substrate or foam is below -60°F (-51°C) or above 180°F (82°C). Huntsman Building Solutions Icynene Xpress 55 should not be used in contact with bulk water, below grade or to cover flexible ductwork.

Disclaimer: The information herein is to assist customers in determining whether our products are suitable for their applications. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. Nothing herein shall constitute a warranty, expressed or implied, including any warranty of merchantability or fitness, nor is protection from any law or patent inferred. All patent rights are reserved. The foam product is combustible and must be protected in accordance with applicable codes. Protect from direct flame and spark contact, around hot work for example. The exclusive remedy for all proven claims is replacement of our materials.

