NCFI 12-008 InsulStar® Light OPTIMAXX

DESCRIPTION: 12-008 InsulStar® Light OPTIMAXX is a two component, self-adhering, seamless, no-mix, open-cell spray applied polyurethane foam insulation system. InsulStar® Light OPTIMAXX is a low VOC material per the CDPH Standard Version 1.2 2017 that offers exceptional yield making it a top choice as an insulation system for interior applications. Compliant with ICC 1100 and IAPMO ES1000.

TYPICAL PHYSICAL PROPERTIES

Property	Test Method	Value
R-Value *Aged R-Value Per ICC 1100 Standard	ASTM C518	3.7 @ 1" 13 @ 3.5"
Core Density	ASTM D1622	0.5 lb./ft^3
Moisture Vapor Transmission	ASTM E96	28 perms @ 1”
Air Permeance @ 75 Pa	ASTM E2178	< 0.02 (L/s-m^2) @ 4”
Fungi Resistance	ASTM C1338	Pass, No Growth
Sound Transmission Loss	ASTM E90	STC- 41*
Noise Reduction	ASTM C423	NRC- 0.75
Sound Absorption	ASTM C423	SAA- 0.71

*In 2"x6" wall assembly.

Building Code Certifications / Fire Test Data	
Code Evaluation Report	Intertek CCRR-0323
Intertek Clean Air Gold	CA-31883
Building Types	Interior Type I, II, III, IV, & V
ASTM E84 Flame Spread	Class I ≤ 25
ASTM E84 Smoke Development	Class I ≤ 450
UL 94	HF-1
Ignition Barrier	Compliant with 2018, 2021 & 2024 IBC and IRC for application in attics and crawl spaces without a prescriptive ignition barrier.
Thermal Barrier NFPA 286	Compliant with the 2018, 2021 & 2024 IBC and IRC, as an interior finish without a 15-minute thermal barrier when coated with an approved intumescent coating.
	Pass: 14 Wet Mils International Fireproof Technology DC 315
	Pass: 14 Wet Mils No-Burn Plus ThB
	Pass: 14 Wet Mils Flame Control 60-60 A

*For information regarding approved thermal and ignition barriers please refer to Code Compliance Research Report CCRR-0323, UES ER-305, and ESR-5614.

Polyurethane products manufactured or produced from this liquid system may present a serious fire hazard if improperly used or allowed to remain exposed or unprotected. The character and magnitude of any such hazard will depend on a broad range of factors, which are controlled and influenced by the manufacturing and production process, by the mode of application or installation and by the function and usage of the particular product. Any flammability rating contained in this literature is not intended to reflect hazards presented by this or any other material under actual fire conditions. These ratings are used solely to measure and describe the product’s response to heat and flame under controlled laboratory conditions. Each person, firm or corporation engaged in the manufacture, production, application, installation or use of any polyurethane product should carefully determine whether there is a potential fire hazard associated with such product in a specific usage and utilize all appropriate precautionary and safety measures.

R-Values*	
Thickness (inches)	R-Value (°F·hr·ft² / Btu)
1	3.7
3.5	13
5.5	21
8	31
10	38
11	42
14	54
16	61

*Note: As with all insulating materials, the R-value will vary with age and use conditions. The numbers represented in this table are aged R-values per ICC 1100 Standard.

Vapor Retarder

When installed at a minimum thickness of 2.8", 12-008 is considered a class III vapor retarder. For applications in colder climates, building codes require a vapor retarder on the warm side of the open cell foam. Consult local building code officials for specific requirements. Climate zone tables are available in current IECC, IBC, and IRC publications.

Storage Recommendation

Shelf life listed below is from the date of manufacture when stored indoors, in the original unopened containers and between the temperatures of 60° – 85°F.

B-12-008 Resin- 6 months

A2-000 Isocyanate- 24 months

Application Guideline

Read all instructions before applying this product. Consult NCFI's application guideline for 12-008 prior to installation. The system should be processed through spray equipment capable of delivering the proper 1:1 ratio by volume. Material should be pre-conditioned to 65-85°F and pre-heater temperatures set between 115 - 135°F. A minimum 1000 psi dynamic pressure is recommended.

Scan to access the SDS and Application Guideline:

Technical Assistance

For additional assistance please contact NCFI's Technical Services department at:

O: 336-783-3491

Email: techservice@ncfi.com

Disclaimer

The information on NCFI's data sheets is to assist customers in determining whether our products are suitable for their applications. The customers must satisfy themselves as to the suitability for specific cases. NCFI warrants only that the material shall meet its specifications. This warranty is in lieu of all other written or unwritten, expressed or implied warranties, and NCFI expressly disclaims any warranty of merchantability, fitness for a particular purpose, or freedom from patent infringement. Accordingly, buyer assumes all risks whatsoever as to the use of the material. Buyer's exclusive remedy as to any breach of warranty, negligence or other claim shall be limited to the purchase price of the material. Failure to adhere to any recommended procedures shall relieve NCFI of all liability with respect to the material or the use thereof.