FLEX ISO II ROOF INSULATION

PRODUCT DATA SHEET

DESCRIPTION: Closed-cell polyisocyanurate (polyiso) foam core integrally bonded to non-asphaltic, fiber-reinforced organic felt facers. Flex ISO II is offered in a variety of thicknesses, providing long-term thermal resistance (LTTR) values from 5.7 to 26.8. Available in 4ft x 8ft (1220mm x 2440mm) and 4ft x 4ft (1220mm x 1220mm) panels. Manufactured in accordance with **ASTM C1289, Type II, Class 1, Grade 2 (20 psi) or Grade 3 (25 psi) and CAN/ULC-S704 Type 2, Class 3 or Type 3, Class 3.**

ADVANTAGES: Flex ISO II is manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP). Flex ISO II contains between 52.9% and 27.6% recycled materials by weight.

APPLICATION: Manufactured and tested for use in new and re-roofing applications. Flex ISO II is used in built-up (BUR), modified bitumen, metal, ballasted single-ply, mechanically attached single-ply and adhered single-ply roofing systems. These roofing systems depend on proper installation for successful performance. Refer to FM Approvals® RoofNav and UL Online Certifications Directory for additional application details.

INSTALLATION: Flex ISO II shall be kept dry before, during and after installation. This product will burn if exposed to an ignition source of sufficient heat and intensity. Do not apply flame directly to Flex ISO II insulation. Refer to product packaging and PIMA Technical Bulletin #109 for storage and handling recommendations. **An offset or staggered multi-layer application of Flex ISO is strongly recommended when the total insulation thickness exceeds 2.7".** Typical field fastening requirements can be obtained from membrane system manufacturer or FM Global Property Loss Prevention Data Sheets 1-29.

Prior to installation, Flex Membrane International Corp. recommends that you consult your local building codes, contract documents, professional engineer, FM Global, Miami-Dade County and membrane manufacturer for additional installation guidelines as well as design enhancements.

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	RESULTS
DIMENSIONAL STABILITY	ASTM D2126	< 2%
COMPRESSIVE STRENGTH	ASTM D1621	20 psi (140 kPa) or 25 psi (172 kPa)
WATER ABSORPTION	ASTM C209 & D2842	< 1.5%, < 3.5%
WATER VAPOR TRANSMISSION	ASTM E96	< 1.5 perm (85.5ng/ (Pa•s•m^2))
PRODUCT DENSITY	ASTM D1622	Nominal 2.0 pcf (32.04 kg/m^3)
FLAME SPREAD	ASTM E84 (10 min.)	[1]40-60
SMOKE DEVELOPMENT	ASTM E84 (10 min.)	[1]50-170
TENSILE STRENGTH	ASTM D1623	> 730 psf (35 kPa)
SERVICE TEMPERATURE	-	-100° to +250°F

[1]Numerical ratings are not intended to reflect performance under actual fire conditions. Flame spread index of ≤ 75 and smoke development ≤ 450 meet code requirements for foam plastic roof insulation. Codes exempt foam plastic insulation when used in FM 4450 or UL 1256. Physical properties listed above are presented as typical average values as determined by accepted ASTM test methods and are subject to normal manufacturing variation.

THERMAL DATA

LTTR VALUE	THICKNESS		[2]RSI	FLUTE SPANABILITY	
	in	mm		in	mm
5.7	1.0	25.4	1.00	2.625	66.68
8.6	1.5	38.1	1.50	4.375	111.13
11.4	2.0	50.8	2.01	4.375	111.13
14.4	2.5	63.5	2.53	4.375	111.13
17.4	*3.0	76.2	3.06	4.375	111.13
20.5	*3.5	88.9	3.60	4.375	111.13
23.6	*4.0	101.6	4.15	4.375	111.13

LTTR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770-09. Test samples were third-party selected and tested by an accredited material testing laboratory. The LTTR results were reviewed by FM Global and certified by the PIMA Quality Mark Program. [2]RSI is the metric expression of R-value (m^2 • K/W).
*To minimize the effects of thermal bridging, Atlas strongly recommends the use of multiple layers when the total desired or specified R-value requires an insulation thickness greater than 2.7" thick.

- **ASTM C1289, Type II, Class 1, Grade 2 (20 psi) or Grade 3 (25 psi)**
- **CAN/ULC-S704, Type 2, Class 3 or Type 3, Class 3**
- **CCMC No. 12464-L**
- **UL Certified for Canada–** Insulated Roof Deck Assemblies Construction No. C38 and 52. Meet CAN/ULC-S126, CAN/ULC-S101 and CAN/ULC-S107
- **UL Standard 1256 Classification** Construction No. 120, 123 & 292
- **UL Standard 790 (ASTM E108)** Roofing Systems Classification
- **UL Standard 263 (ASTM E119)** Fire Resistance Classification
- **UL Standard 1897** Uplift Resistance
- **FM Standard 4450/4470 Approved**
  Refer to FM Approvals® RoofNav for Specific System Details
- **IBC Chapter 26 & NBC** Sections on Foam Insulation
- **Miami-Dade County Approved**

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