ACFoam® Nail Base

Nailable Roof Insulation

DESCRIPTION: Thermally efficient closed-cell ACFoam®-II or ACFoam®-III polyisocyanurate (polyiso) insulation board bonded to min. 7/16″ APA/TECO rated OSB or min. 19/32″ CDX plywood on the top face. ACFoam® Nail Base is offered in a variety of composite thicknesses, providing long-term thermal resistance (LTTR) values from 6.3 to 24.2. Made to order in 4ft×8ft (1220mm×2440mm) panels with a nominal thickness of 1.5″ to 4.5″. Manufactured in accordance with **ASTM C1289, Type V.**

ADVANTAGES: ACFoam® Nail Base combines the benefits of a nailable roof substrate and thermally efficient polyiso insulation in an easy one-step installation. Available as a special order product with FSC® Certified (Bonded to ACFoam®-III), Fire-Treated, Preservative-Treated OSB or CDX. ACFoam® Nail Base 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). ACFoam® Nail Base contains between 52.9% and 28.9% recycled materials by weight *(Atlas Technical Bulletin: TB-2)*.

APPLICATION: Approved for use as a non-structural panel in new and re-roofing applications. ACFoam® Nail Base is typically installed over sloped solid-wood and metal roof decks. Deck slope must be appropriate for the type of roof system specified. Typical roof systems include asphalt shingles, standing seam metal, tile and slate. ACFoam® Nail Base is not designed or approved for vertical application. The architect, engineer or design professional is responsible for determining the need for and location of a vapor/air retarder.

INSTALLATION: **Atlas requires mechanical attachment of Atlas ACFoam® Nail Base with Atlas Nail Base Fasteners to approved structural roof decks.** ACFoam® Nail Base 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 ACFoam® Nail Base insulation. Refer to product packaging and *PIMA Technical Bulletin #109* for storage and handling recommendations. Suitable for multi-layer assemblies when installed over Atlas ACFoam®-II, or -III and through-fastened with Atlas Nail Base Fasteners. Refer to *Nailable Insulation Guide* for fastening guidelines and installation recommendations.

Prior to installation, Atlas Roofing Corporation 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
(POLYISO ONLY)

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	< 1.0%, < 3.5%
WATER VAPOR TRANSMISSION	ASTM E96	< 1.0 perm (57.5ng/ (Pa•s•m²))
PRODUCT DENSITY	ASTM D1622	Nominal 2.0 pcf (32.04 kg/m³)
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

[2]LTTR VALUE	[4]COMPOSITE THICKNESS		[3]RSI	FLUTE SPANABILITY	
	in	mm		in	mm
6.3	1.5	38.1	1.10	4.375	111.13
9.1	2.0	50.8	1.60	4.375	111.13
12.0	2.5	63.5	2.10	4.375	111.13
15.0	3.0	76.2	2.63	4.375	111.13
18.0	*3.5	88.9	3.16	4.375	111.13
21.1	*4.0	101.6	3.70	4.375	111.13
24.2	*4.5	114.3	4.25	4.375	111.13

[2]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. ACFoam Nail Base calculations based on 7/16″ OSB (R-value 0.55) unless noted otherwise. [3]RSI is the metric expression of R-value (m² • K/W). [4]Composite thickness includes wood layer and ACFoam®-II polyiso insulation board.
** 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 V**
- **UL Standard 1256 Classification** Construction No. 120, 123 & 458
- **UL Standard 790 (ASTM E108)** For use with Class A, B or C Shingles, Metal or Tile Roof Coverings
- **UL Standard 263 (ASTM E119)** Fire Resistance Classification
- **FM Standard 4450/4470 Approved (1-90, 1-105)** Approved for Class 1 Insulated Roof Deck Construction. Refer to FM Approvals® RoofNav for Specific System Details
- **IBC Chapter 26 & NBC** Sections on Foam Insulation
- **California State** Insulation Quality Standards and Title 25 Foam Flammability Criteria (License #T 1231)
- **Miami-Dade County Approved**
- **State of Florida Product Approval** (FL17989)
- **APA/TECO** Rated OSB Nailing Surface
- **U.S. Voluntary Product Standard** PS 2 Compliant