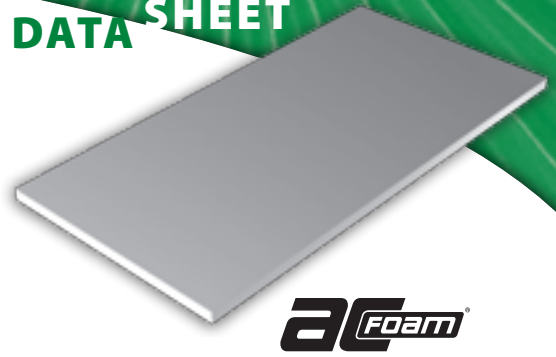


ACFOAM® SUPREME

DATA SHEET



→ ACFOAM® SUPREME PRODUCT DESCRIPTION AND RECOMMENDED USES

ACFoam® Supreme

- Features Atlas closed-cell polyiso with tri-laminate foil facers. Since these facers are considered impermeable, Supreme provides the highest R-value per inch of any of the ACFoam® products.
- Used in metal roof systems, mechanically attached, and loose-laid, ballasted, single-ply membrane systems.
- Specified for cold storage and metal building applications. ACFoam® Supreme should not be used directly with hot asphalt, torch-applied, or any adhered systems.
- Not designed as a substitute for a vapor retarder.
- CFC, HCFC, and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and zero (negligible) global warming potential (GWP).

→ INSTALLATION

Before installation begins, the roof deck should be firm, well attached, even, clean, and dry. Proper attachment of the insulation is necessary to prevent roof failures. Atlas is not responsible for any damage caused by improper attachment. ACFoam® products can be attached to decks that are approved by FM Approvals and local codes. Atlas is not responsible for determining the suitability of the deck.

ACFoam® shall be kept dry before, during and after installation. Install only as much ACFoam® as can be covered the same day with completed roofing.

Although ACFoam® has been designed to withstand normal foot traffic, protection from damage by construction traffic and/or abuse is extremely important. Roof surface protection such as plywood shall be used in areas where storage and staging are planned and heavy or repeated traffic is anticipated during or after installation. Refer to Atlas Technical Bulletin #00-01.

ACFoam® Supreme available in 4' x 4' (1220mm x 1220mm) and 4' x 8' (1220mm x 2440mm) panels.

→ MULTI-LAYER INSTALLATION

A two-layer application of ACFoam® is strongly recommended. The joints in each layer should be offset in order to avoid a vertically continuous joint through the total insulation thickness. Two layers (or more) with joints staggered can provide improved insulation performance by eliminating thermal bridges. This method also reduces condensation potential and thermal stress on the roof membrane. Refer to Atlas Technical Bulletin #00-01. Atlas recommends multi-layering when desired insulation thicknesses are greater than 2.7 in.

→ MECHANICAL ATTACHMENT

Mechanical fastening is the recommended method of attachment over nailable decks. Fastener frequency and spacing for steel, wood, cast-in-place structural concrete and poured gypsum decks are covered in the current Atlas Catalog according to the membrane system. Refer to the current FM Loss Prevention Data Sheet 1-29 for special considerations regarding perimeter and corners of the roof. Go to www.atlasroofing.com for typical fastening patterns for field area of the roof.

For further recommendations regarding attachment of insulation to lightweight insulating concrete decks or poured gypsum concrete decks, follow the instructions outlined in the *NRCA Roofing Manual, Membrane Roof Systems 2007*. ACFoam® products shall not be adhered directly to these decks by any bitumen or adhesive attachment method.

→ ADHESIVE ATTACHMENT

Contact adhesive manufacturer for installation recommendations for ACFoam® Supreme.

→ CODES AND COMPLIANCES

- Federal Specification HH-I-1972/GEN and HH-I-1972/3 have been cancelled.
- ASTM C 1289, Type I, Class 1
- Miami-Dade County, Florida Product Control No. 08-0111.01
- State of Florida Product Approval #FL6796
- State of California, License #TC 1231
- IBC, NBC, UBC, and SBC Sections on Foam Insulation (Chapter 26)
- CCMC No. 12422-R
- CAN/ULC-S704
- CAN/CGSB - 51.26-M86

FM Standard 4450/4470 Approval

ACFoam® Supreme is approved for Class 1 insulated steel roof deck construction. Refer to FM Approvals RoofNav for details on specific systems.

UL Standard 790 (ASTM E 108) Classification

Class A with most roof membrane systems. See UL Roofing Materials & Systems Directory.

→ TECHNICAL DATA

LTTR VALUE	NOMINAL THICKNESS		ACFOAM® SUPREME		METAL DECK FLUTE	
	in	mm	RSI**	PCS/PKG	in	mm
6.2	1.0	25.40	1.09	48	2.625	66.68
9.3	1.5	38.10	1.64	32	4.375	111.13
11.2	1.8	45.72	1.97	26	4.375	111.13
12.4	2.0	50.80	2.18	24	4.375	111.13
15.5	2.5	63.50	2.73	19	4.375	111.13
16.7	2.7	68.58	2.94	17	4.375	111.13
18.6	3.0	76.20	3.27	16	4.375	111.13
20.5	3.3	83.82	3.61	14	4.375	111.13

Annex A1. All test samples were third-party selected and tested by an accredited material testing laboratory.

CAN/ULC-S770 and ASTM C 1289, Annex A1 do not apply to impermeably-faced (e.g., foil-faced) foam plastic insulation. A test method for determining LTTR values for impermeably faced foam plastic insulation is currently under development. Until such a test is available, Atlas has chosen to establish an interim LTTR value for ACFoam® Supreme based on LTTR test experience with permeably-faced products.

** RSI is the metric expression of LTTR (m² · K/W)

→ VAPOR/AIR RETARDERS

Moisture vapor tends to migrate from warmer to cooler areas. In building construction, vapor/air retarders are used to inhibit or block the passage of warm, moisture laden air into walls or roofing assemblies. To determine whether a vapor/air retarder is necessary, calculations based on interior relative humidity, interior temperature, and the outside design temperature must be performed. Consult the *NRCA Roofing Manual (Membrane Roof Systems)* for more information regarding vapor/air retarders and dew point calculations.

Special consideration should be given to construction generated moisture as well. For example, construction-generated moisture will be released when concrete floor slabs are placed after the roof has been installed, which can drive large quantities of moisture into the roof system. Therefore, Atlas is not responsible for damage to the insulation when exposed to construction-generated moisture or from moisture released from building materials. Refer to the *NRCA Roofing Manual (Membrane Roof Systems)* for recommendations for the use of a vapor retarder when construction-generated moisture is present. Refer to Atlas Technical Bulletin #00-01. **Consult vapor/air retarder manufacturer for recommended applications and details.**

→ STORAGE

Factory applied packaging is intended only for protection during transit. When stored outdoors or on the job site, the insulation should be stacked on pallets at least four inches above ground level and completely covered with a

weatherproof covering such as a tarpaulin. The temporary factory-applied packaging should be slit or removed to prevent accumulation of condensation. Roof insulation which has become wet or damaged should be removed and replaced with solid, dry insulation.

→ TECHNICAL ASSURANCE

Atlas provides a full-service Technical Department with a LEED Accredited Professional (AP), Registered Roof Consultant (RRC), Construction Documents Technologists (CDT) and Certified Construction Product Representatives (CCPR) on staff.

→ WARNING - DO NOT LEAVE EXPOSED

This product is a polyiso organic plastic foam and will burn if exposed to an ignition source of sufficient heat and intensity, or open flame, such as a welder's torch. Like other organic materials, this product will release smoke if ignited. Do not apply flame directly to ACFoam® roof insulations. This product should be used only in strict accordance with Atlas recommended uses and application instructions.

→ LIMITATION OF LIABILITY

Other than the aforementioned representations and descriptions, Atlas Roofing Corporation (hereafter, "Seller") makes no other representations or warranties as to the insulation sold herein. The Seller disclaims all other warranties, express or implied, including the warranty of merchantability and the warranty of fitness for a particular

purpose. Seller does, however, have a limited warranty as to the LTTR-Value of the insulation, the terms of which are available upon request from the Seller.

The Seller shall not be liable for any incidental or consequential damages including the cost of installation, removal, repair or replacement of this product. The Buyer's remedies shall be limited exclusively to, at Seller's option, the repayment of the purchase price or resupply of product manufactured by Atlas in a quantity equal to that of the nonconforming product. Atlas distributors, agents, salespersons or other independent representatives have no authority to waive or alter the above limitation of liability and remedies..

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CORPORATE SALES & MARKETING

2000 RiverEdge Parkway, Suite 800
Atlanta, GA 30328



www.greenzone.com



www.atlasroofing.com

→ TYPICAL PHYSICAL PROPERTIES (FOAM PORTION)

PROPERTY	TEST METHOD	TYPICAL RESULTS
Dimensional Stability (Length and Width)	ASTM D 2126	< 2 %
Compressive Strength (10% Deformation)	ASTM D 1621	20 psi (138 kPa) or 25 psi (172 kPa)
Water Absorption	ASTM C 209, ASTM D 2842	< 1 %, < 3.5 %
Moisture Vapor Transmission	ASTM E 96	< 1.0 perm, (85.0ng / (Pa•s•m2))
Product Density	ASTM D 1622	Nominal 2.0 pcf (32.04 kg/m3)
Flame Spread	ASTM E 84 (Full 10 min. Test)	40-60*
Smoke Developed	ASTM E 84 (Full 10 min. Test)	50-170*
Tensile Strength	ASTM D 1623	>730 psf (35 kPa)
Service Temperature	-	-40 to 200° F**

*The numerical ratings as determined by ASTM Test Method E 84 are not intended to reflect hazards presented by this or any other material under actual fire conditions. A flame spread index of 75 or less and smoke development of 450 or less meet code requirements regarding flame spread and smoke development for foam plastic roof insulation. However, the codes exempt foam plastic insulation when used in roof deck constructions that comply as an assembly with FM 4450 or UL 1256 (see IBC, NBC, UBC, and SBC Sections on Foam Plastic Insulation (Chapter 26). Smoke development does not apply to roofing.

**ASTM C 1289 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.

The physical properties listed above are presented as typical average values as determined by accepted ASTM test methods and are subject to normal manufacturing variation.