ACFoam®-HD CoverBoard-FR

High Density Roof CoverBoard Insulation

DESCRIPTION: Closed-cell polyisocyanurate (polyiso) foam core integrally bonded to inorganic ACFoam®-III coated glass facers. Available in 0.625″ thick 4ft×8ft (1220mm×2440mm) and 0.625″ thick 4ft×4ft (1220mm×1220mm) panels. Manufactured in accordance with **ASTM C1289, Type II, Class 4, Grade 1 (80 psi (551 kPa) minimum, up to 110 psi (758 kPa) compressive strength).**

ADVANTAGES: Developed with coated glass facers and a ***high density*** polyiso foam core. ACFoam-HD CoverBoard-FR offers increased dimensional stability and roof system protection in a lightweight and easy to handle rigid polyiso construction. ACFoam-HD CoverBoard-FR achieves a UL Class A rating over combustible decks with any UL classified EPDM, PVC or TPO membrane that is currently classified to be used with ACFoam-II or ACFoam-III insulations. Insulation butt joints to be staggered a minimum 6″ from the butt joints in the plywood roof deck. Incline is limited to the current rating of the UL Classified EPDM, PVC or TPO membranes with "ACFoam-II" or "ACFoam-III" insulations but cannot exceed ½″. When using ACFoam-HD CoverBoard-FR in adhered systems, field testing has confirmed significantly more efficient use of solvent-based adhesives than with organic faced insulations. Adhesive application rates vary by manufacturer. Check adhesive manufacturer's recommendation for application rates. Manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP).

APPLICATION: Manufactured and tested for use in new and re-roofing applications. ACFoam-HD CoverBoard-FR is used in mechanically attached single-ply, fully adhered single-ply and self-adhered "peel & stick" 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 and approvals.

INSTALLATION: ACFoam-HD CoverBoard-FR 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-HD CoverBoard-FR insulation. Refer to product packaging and *PIMA Technical Bulletin #109* for storage and handling recommendations. **An offset or staggered multi-layer application of ACFoam is strongly recommended when the total insulation thickness exceeds 2.7″** *(Atlas Technical Bulletin: TB-5).* Typical field fastening requirements can be obtained from membrane system manufacturer or FM Global Property Loss Prevention Data Sheets 1–29.

Prior to installation, Atlas Roofing Corporation recommends that you consult your local building codes, contract documents, professional engineer, and membrane manufacturer for additional installation guidelines as well as design enhancements.

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	ASTM C1289 MIN. REQUIREMENTS (ACTUAL PERFORMANCE MEETS OR EXCEEDS ASTM C1289 REQUIREMENTS)
DIMENSIONAL STABILITY	ASTM D2126	T < 4.0%, L & W < 1.0%
COMPRESSIVE STRENGTH	ASTM D1621	[2]Grade 1
WATER ABSORPTION	ASTM C209	< 4.0%
WATER VAPOR TRANSMISSION	ASTM E96	< 1.5 perm (85.0ng/ (Pa•s•m²))
FLAME SPREAD	ASTM E84 (10 min.)	<75
SMOKE DEVELOPMENT	ASTM E84 (10 min.)	<450
TENSILE STRENGTH	ASTM D1623	> 2000 psf (95 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.

[2]80 psi (551 kPa) minimum, up to 110 psi (758 kPa)

THERMAL DATA

THICKNESS		THERMAL		PCS/PKG
in	mm	[3]R-VALUE	[4]RSI	
0.625	15.9	2.5	0.44	36

[3]Determined by ASTM test method C518 at 75°F mean temperature.
[4]RSI is the metric expression of R-value (m²•K/W).

FASTENING GUIDELINES

THICKNESS	FM RATING	FIELD FASTENERS PER 4′×8′ BOARD
0.625″	1–75	12
	1–90	16

Tested ratings refer to selected adhered membranes.

- **ASTM C1289, Type II, Class 4, Grade 1**
- **FM Standard 4450/4470 Approved** Refer to FM Approvals® RoofNav for Specific System Details
- **UL Standard 790 (ASTM E108)** Roofing Systems Classification
- **UL Class A** Over Combustible Decks with UL Classified EPDM, PVC and TPO Membranes
- **IBC Chapter 26 & NBC** Sections on Foam Insulation