



COMMERCIAL ROOFING PRODUCTS

 **POLYISO ROOF INSULATION,**
 **SPECIALTY PRODUCTS & ACCESSORIES**



ATLAS®

CONNECTING FUNCTION WITH FACILITY™

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**THE LEADER IN POLYISO
AND FACER TECHNOLOGY.**



From business districts to warehouses and manufacturing facilities across North America, Atlas ACFoam® roofing products can be trusted to perform across all your installations.



INTRODUCTION

Atlas Roofing Corporation is an industry leader in polyiso and facer technology. Atlas has invested in its people and technology to enable the highest level of support and customer service across the industry. Because of this commitment, Atlas products come with the peace of mind associated with reliable, consistent engineering, delivered when and where they are needed.

Originating as an asphalt shingle manufacturing company in 1982, today Atlas continues to deliver superior customer service with every job. As Atlas has grown, so has the collective knowledge of the people working there. Atlas is able to share advancements in building science knowledge in important ways, so your projects are energy efficient, cost effective and profitable.

Focusing on a full line of flat, tapered and nailable composite polyiso roof insulation products, Atlas has eight state of the art manufacturing facilities strategically located throughout North America. Atlas Roofing Corporation proudly supplies ACFoam® polyiso roof insulation as part of roofing systems around the world. So when Atlas says it is *Connecting Function with Facility*,™ it means that you get a partner that helps with all the technical details so your jobs are easier and run more smoothly than with any other polyiso manufacturer.



PUT OUR PRODUCTS TO WORK FOR YOU.



ACFoam®-II

GRF Roof Insulation

- Closed-cell polyisocyanurate (polyiso) foam core integrally bonded to non-asphaltic, fiber-reinforced organic felt facers.
- Offered in a variety of thicknesses, providing long-term thermal resistance (LTTR) values from 4.3 to 26.8.
- Flat insulation available in 4ft x 4ft (1220mm x 1220mm) and 4ft x 8ft (1220mm x 2440mm) panels.
- Tapered insulation available in 4ft x 4ft (1220mm x 1220mm) panels with 1/8" (3mm), 1/4" (6mm) and 1/2" (12mm) per foot slope.
- Manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP).
- Contains between 59% and 27.6% recycled materials by weight (Atlas Technical Bulletin: TB-2).
- Typically specified for use in new and re-roofing applications. Flat and Tapered ACFoam®-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.



CODES AND COMPLIANCES

- **ASTM C1289, Type II, Class 1, Grade 2 (20 psi) or Grade 3 (25psi)**
- **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**
- **California State** Insulation Quality Standards and Title 25 Foam Flammability Criteria (T 1231)
- **Miami-Dade County Approved**
- **State of Florida Product Approval (FL17989)**

PHYSICAL PROPERTIES

¹Numerical 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.

ACFoam[®]-II

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

Tapered ACFoam[®]-II

THERMAL DATA (FLAT)

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

THERMAL DATA (TAPERED)

PANEL LABEL	AVERAGE		THICKNESS		SLOPE	
	LTTR	² RSI	IN	MM	PER FT	PERCENT
AA	4.3	0.76	0.5-1.0	12-25	1/8"	1%
A	7.1	1.25	1.0-1.5	25-38	1/8"	1%
B	10.0	1.76	1.5-2.0	38-50	1/8"	1%
C	12.9	2.27	2.0-2.5	50-63	1/8"	1%
X	5.7	1.00	0.5-1.5	12-38	1/4"	2%
Y	11.4	2.01	1.5-2.5	38-63	1/4"	2%
Q	8.6	1.50	0.5-2.5	12-63	1/2"	4%

LTTR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770. 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.

²RSI is the metric expression of R-value (m² • 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.



ACFoam[®]-III

CGF Roof Insulation

- Closed-cell polyisocyanurate (polyiso) foam core integrally bonded to inorganic coated glass facers.
- Offered in a variety of thicknesses, providing long-term thermal resistance (LTTR) values from 4.3 to 26.8.
- Flat insulation available in 4ft x 4ft (1220mm x 1220mm) and 4ft x 8ft (1220mm x 2440mm) panels.
- Tapered insulation available in 4ft x 4ft (1220mm x 1220mm) panels with 1/8" (3mm), 1/4" (6mm) and 1/2" (12mm) per foot slope.
- Manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP).
- Contains between 11.2% and 5.2% recycled materials by weight (Atlas Technical Bulletin: TB-2).
- Recognized by the GREENGUARD Environmental Institute as resistant or highly resistant to mold growth based on independent testing using GREENGUARD Test Method GGTM.P040 (ASTM D6329) for microbial resistance.
- Typically specified for use in new and re-roofing applications. Flat and Tapered ACFoam[®]-III 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.
- Field testing has confirmed significantly more efficient use of solvent-based adhesives than with organic faced insulations.



CODES AND COMPLIANCES

- **ASTM C1289, Type II, Class 2, Grade 2 (20 psi) or Grade 3 (25 psi)**
- **CAN/ULC-S704, Type 2, Class 3 or Type 3, Class 3**
- **CCMC 12423-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**
- **California State** Insulation Quality Standards and Title 25 Foam Flammability Criteria (T 1231)
- **Miami-Dade County Approved**
- **State of Florida Product Approval (FL17989)**

PHYSICAL PROPERTIES

¹Numerical 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.

ACFoam[®]-III

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	< 4.0 perm (228.8ng/ (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

Tapered ACFoam[®]-III

THERMAL DATA (FLAT)

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

THERMAL DATA (TAPERED)

PANEL LABEL	AVERAGE		THICKNESS		SLOPE	
	LTTR	² RSI	IN	MM	PER FT	PERCENT
AA	4.3	0.76	0.5-1.0	12-25	1/8"	1%
A	7.1	1.25	1.0-1.5	25-38	1/8"	1%
B	10.0	1.76	1.5-2.0	38-50	1/8"	1%
C	12.9	2.27	2.0-2.5	50-63	1/8"	1%
X	5.7	1.00	0.5-1.5	12-38	1/4"	2%
Y	11.4	2.01	1.5-2.5	38-63	1/4"	2%
Q	8.6	1.50	0.5-2.5	12-63	1/2"	4%

LTTR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770. 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.

²RSI is the metric expression of R-value (m² • 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.



ACFoam®-IV

High Performance Roof Insulation

- Closed-cell polyisocyanurate (polyiso) foam core integrally bonded to heavy weight high performance inorganic coated glass facers.
- Offered in a variety of thicknesses, providing long-term thermal resistance (LTTR) values from 5.7 to 26.8.
- Flat insulation available in 4ft x 4ft (1220mm x 1220mm) and 4ft x 8ft (1220mm x 2440mm) panels.
- Manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP).
- Contains between 9.4% and 4.2% recycled materials by weight (Atlas Technical Bulletin: TB-2).
- Class A ratings can be achieved with ACFoam®-IV in a minimum thickness of 1.0" when placed directly on a combustible deck (1:12 maximum deck slope).
- Recognized by the GREENGUARD Environmental Institute as resistant or highly resistant to mold growth based on independent testing using GREENGUARD Test Method GGTM.P040 (ASTM D6329) for microbial resistance.
- Typically specified for use in new and re-roofing applications. ACFoam®-IV 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.
- The number of fasteners required to attach ACFoam®-IV in a mechanically attached membrane roof system has been reduced from 5 to 4.
- Field testing has confirmed significantly more efficient use of solvent-based adhesives than with organic faced insulations.



CODES AND COMPLIANCES

- **ASTM C1289, Type II, Class 2, Grade 2 (20 psi) or Grade 3 (25psi)**
- **CAN/ULC-S704, Type 2, Class 3 or Type 3, Class 3**
- **CCMC 12423-L**
- **UL Certified for Canada** – Insulated Roof Deck Assemblies Construction No. C38 and 52, Meet CAN/ULC-S126-M86, CAN/ULC-S101-M89 and CAN/ULC-S107-M87
- **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**
- **California State** Insulation Quality Standards and Title 25 Foam Flammability Criteria (T 1231)
- **Miami-Dade County Approved**
- **State of Florida Product Approval (FL17989)**

PHYSICAL PROPERTIES

¹Numerical 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.

ACFoam[®]-IV

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	< 4.0 perm (228.8ng/ (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

THERMAL DATA (FLAT)

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. 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.

²RSI is the metric expression of R-value (m² • 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.





ACFoam[®] Supreme

Foil Faced Roof Insulation

- Closed-cell polyisocyanurate (polyiso) foam core integrally bonded to reflective tri-laminate foil facers.
- Offered in a variety of thicknesses, providing long-term thermal resistance (LTTR) values from 5.6 to 26.8.
- Available in 4ft x 4ft (1220mm x 1220mm) and 4ft x 8ft (1220mm x 2440mm) panels.
- Manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP).
- Contains between 11.5% and 13.7% recycled materials by weight (Atlas Technical Bulletin: TB-2).
- Typically specified for cold storage and metal building applications. Used in metal roof systems as well as mechanically attached and ballasted single-ply membrane systems. Refer to FM Approvals[®] RoofNav and UL Online Certifications Directory for additional application details. Should not be used in hot asphalt, torch applied or adhered systems.



CODES AND COMPLIANCES

- **ASTM C1289, Type I, Class 1, Grade 2 (20 psi) or Grade 3 (25psi)**
- **CAN/ULC-S704, Type 2, Class 1 or Type 3, Class 1**
- **CCMC No. 12422-R**
- **UL Standard 790 (ASTM E108) Roofing Systems Classification**
- **FM Standard 4450/4470 Approved** 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 (T 1231)
- **Miami-Dade County Approved**
- **State of Florida Product Approval (FL17989)**

PHYSICAL PROPERTIES

¹Numerical 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.

ACFoam[®] Supreme

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	< 0.5%, $\leq 3.5\%$
Water Vapor Transmission	ASTM E96	< 0.3 perm (17.2 ng/ (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

THERMAL DATA (FLAT)

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

CAN/ULC-S770 does not apply to impermeably-faced foam plastic insulation. Atlas has chosen to establish an LTTR value for ACFoam[®] Supreme based on LTTR test experience with permeably-faced products.

²RSI is the metric expression of R-value (m² • 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.





ACFoam[®]-HS Coverboard

High Strength Roof Coverboard Insulation

- Closed-cell polyisocyanurate (polyiso) foam core integrally bonded to heavy weight high performance ACFoam[®]-IV inorganic coated glass facers.
- Manufactured in accordance with ASTM C1289, Type II, Class 4, Grade 1 (80 psi (551 kPa) minimum, up to 110 (758 kPa) compressive strength).
- Available in 0.5" thick 4ft x 8ft (1220mm x 2440mm) and 0.5" thick 4ft x 4ft (1220mm x 1220mm) panels.
- Manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP).
- Contains 5.3% recycled materials by weight (Atlas Technical Bulletin: TB-2).
- Recognized by the GREENGUARD Environmental Institute as resistant or highly resistant to mold growth based on independent testing using GREENGUARD Test Method GGTM.P040 (ASTM D6329) for microbial resistance.
- Typically specified for use in new and re-roofing applications. ACFoam[®]-HS CoverBoard is used in built-up (BUR), modified bitumen, 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.
- Field testing has confirmed significantly more efficient use of solvent-based adhesives than with organic faced insulations.



CODES AND COMPLIANCES

- **ASTM C1289, Type II, Class 4, Grade 1 (110 psi (758 kPa), maximum compressive strength)**
- **FM Standard 4450/4470 Approved** Refer to FM Approvals[®] RoofNav for Specific System Details
- **UL Certified for Canada**
- **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**
- **Resistant to Mold Growth as Validated by the GREENGUARD Environmental Institute (ASTM D6329)**
- **FM 4473 rated SH-1** for Severe Hail
- **UL Class B** Over Combustible Decks with UL Classified Membranes
- **IBC Chapter 26 & NBC Sections on Foam Insulation**
- **State of Florida Product Approval (FL17989)**

PHYSICAL PROPERTIES

¹Numerical 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.

PROPERTY	TEST METHOD	RESULTS
Dimensional Stability	ASTM D2126	< 0.5%
Compressive Strength	ASTM D1621	Grade 1 (110 psi (758 kPa) maximum compressive strength)
Water Absorption	ASTM C209	< 3.0%
Water Vapor Transmission	ASTM E96	< 1.5 perm (85.0ng/ (Pa*s*m ²))
Flame Spread	ASTM E84 (10 min.)	¹ 40-60
Smoke Development	ASTM E84 (10 min.)	¹ 50-170
Tensile Strength	ASTM D1623	> 2000 psf (95 kPa)
Service Temperature	-	-100° to +250°F

ACFoam[®]-HS CoverBoard

THERMAL DATA

THICKNESS		THERMAL DATA		PCS/PKG
IN	MM	R-VALUE	² RSI	
0.5	12.7	2.5	0.44	42

LTTR (long term thermal resistance) values were determined by ASTM test method C518 at 75°F mean temperature. ²RSI is the metric expression of R-value (m² • K/W).

FASTENING GUIDELINES

THICKNESS	FM RATING	FIELD FASTENERS PER 4' X 8' BOARD
0.5"	1-60	8
	1-75	12
	1-90	14
	1-150	24
	1-210	32

Tested ratings refer to selected adhered membranes.



ACFoam[®]-HD Coverboard

High Density Roof Coverboard Insulation

- Closed-cell polyisocyanurate (polyiso) foam core integrally bonded to ACFoam[®]-III inorganic coated glass facers.
- Manufactured in accordance with ASTM C1289, Type II, Class 4, Grade 1 (80 psi (551 kPa) minimum, up to 110 (758 kPa) compressive strength).
- Available in 0.5" thick 4ft x 8ft (1220mm x 2440mm) and 0.5" thick 4ft x 4ft (1220mm x 1220mm) panels.
- Manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP).
- Contains 7.4% recycled materials by weight (Atlas Technical Bulletin: TB-2).
- Recognized by the GREENGUARD Environmental Institute as resistant or highly resistant to mold growth based on independent testing using GREENGUARD Test Method GGTM.P040 (ASTM D6329) for microbial resistance.
- Typically specified for use in new and re-roofing applications. ACFoam[®]-III HD CoverBoard is used in 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.
- Field testing has confirmed significantly more efficient use of solvent-based adhesives than with organic faced insulations.



CODES AND COMPLIANCES

- **ASTM C1289, Type II, Class 4, Grade 1 (110 psi (758 kPa), maximum compressive strength)**
- **FM Standard 4450/4470 Approved** Refer to FM Approvals[®] RoofNav for Specific System Details
- **UL Certified for Canada**
- **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**
- **Resistant to Mold Growth as Validated by the GREENGUARD Environmental Institute (ASTM D6329)**
- **FM 4473 rated SH-1 for Severe Hail**
- **UL Class B Over Combustible Decks with UL Classified Membranes**
- **IBC Chapter 26 & NBC Sections on Foam Insulation**
- **State of Florida Product Approval (FL17989)**

PHYSICAL PROPERTIES

¹Numerical 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.

PROPERTY	TEST METHOD	RESULTS
Dimensional Stability	ASTM D2126	< 0.5%
Compressive Strength	ASTM D1621	Grade 1 (110 psi (758 kPa) maximum compressive strength)
Water Absorption	ASTM C209	< 3.0%
Water Vapor Transmission	ASTM E96	< 1.5 perm (85.0ng/ (Pa•s•m ²))
Flame Spread	ASTM E84 (10 min.)	¹ 40-60
Smoke Development	ASTM E84 (10 min.)	¹ 50-170
Tensile Strength	ASTM D1623	> 2000 psf (95 kPa)
Service Temperature	-	-100° to +250°F

ACFoam[®]-HD CoverBoard

THERMAL DATA

THICKNESS		THERMAL DATA		PCS/PKG
IN	MM	R-VALUE	² RSI	
0.5	12.7	2.5	0.44	42

LTTR (long term thermal resistance) values were determined by ASTM test method C518 at 75°F mean temperature. ²RSI is the metric expression of R-value (m² • K/W).

FASTENING GUIDELINES

THICKNESS	FM RATING	FIELD FASTENERS PER 4' X8' BOARD
0.5"	1-75	12
	1-90	16

Tested ratings refer to selected adhered membranes.





ACFoam[®] Recover Board

Roof Recover Board Insulation

- Closed-cell polyisocyanurate (polyiso) foam core integrally bonded to inorganic coated glass facers.
- Available in 0.5", 0.75" & 1.0" thick 4ft x 4ft (1220mm x 1220mm) and 4ft x 8ft (1220mm x 2440mm) panels.
- Manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP).
- Contains between 6.2% and 4.0% recycled materials by weight (Atlas Technical Bulletin: TB-2).
- Recognized by the GREENGUARD Environmental Institute as resistant or highly resistant to mold growth based on independent testing using GREENGUARD Test Method GGTM.P040 (ASTM D6329) for microbial resistance.
- Typically specified for use in recover applications. ACFoam[®] Recover Board is used in cold-applied built-up (BUR), cold applied modified bitumen, 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.
- Field testing has confirmed significantly more efficient use of solvent-based adhesives than with organic faced insulations.



CODES AND COMPLIANCES

- **ASTM C1289, Type II, Class 2, Grade 2 (20 psi) or Grade 3 (25 psi)**
- **CAN/ULC-S704, Type 2, Class 3 or Type 3, Class 3**
- **CCMC No. 12423-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 790 (ASTM E108) Roofing Systems Classification**
- **FM Standard 4450/4470 Approved** 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 (T 1231)
- **Miami-Dade County Approved**
- **State of Florida Product Approval (FL17989)**

PHYSICAL PROPERTIES

¹Numerical 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.

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	< 4.0 perm (228.8ng/ (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

ACFoam[®] Recover Board

THERMAL DATA

LTTR VALUE	THICKNESS		² RSI	FLUTE SPANABILITY	
	IN	MM		IN	MM
2.9	0.50	12.70	0.51	N/A	N/A
4.3	0.75	19.05	0.76	N/A	N/A
5.7	1.00	25.40	1.00	N/A	N/A

LTTR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770. 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. ²RSI is the metric expression of R-value (m² • K/W).



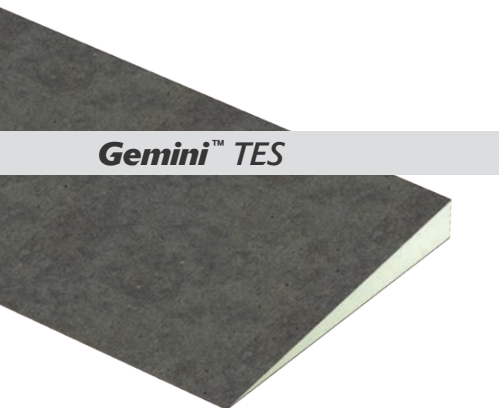


Gemini™ TES

Tapered Edge Strip

Gemini™ Tapered Edge Strip (TES) is produced with a closed-cell polyisocyanurate (polyiso) foam core integrally bonded to non-asphaltic, fiber-reinforced organic felt or inorganic coated-glass facers. Dimensionally stable Gemini™ TES provides a Zero Edge™ polyiso tapered insulation transition of either 1.0" per ft or 1.5" per ft.

- Available with ACFoam®-II and ¹ACFoam®-III Facer Technology.
¹2.0" x 24" TES only. Regional availability and limited order quantities apply.
- Field Insulation Transitions
- Cricket Fabrication
- Drain Sump Fabrication
- Roof Perimeter Slope Enhancement
- Used in Built-Up (BUR), Modified Bitumen, Ballasted Single-Ply, Mechanically Attached Single-Ply and Adhered Single-Ply Roofing Systems



PHYSICAL PROPERTIES

THICKNESS		PRODUCT DIMENSIONS		PACKAGING SPECIFICATIONS	
MINIMUM	MAXIMUM	WIDTH	LENGTH	PIECES PER BUNDLE	BUNDLES PER UNIT
0.0"	1.5" (38.1 mm)	12" (305 mm)	96" (2438 mm)	12 PCS (96 LF)	8 BUNDLES (768 LF)
0.0"	2.0" (50.8 mm)	24" (610 mm)	96" (2438 mm)	10 PCS (80 LF)	4 BUNDLES (320 LF)

THERMAL DATA

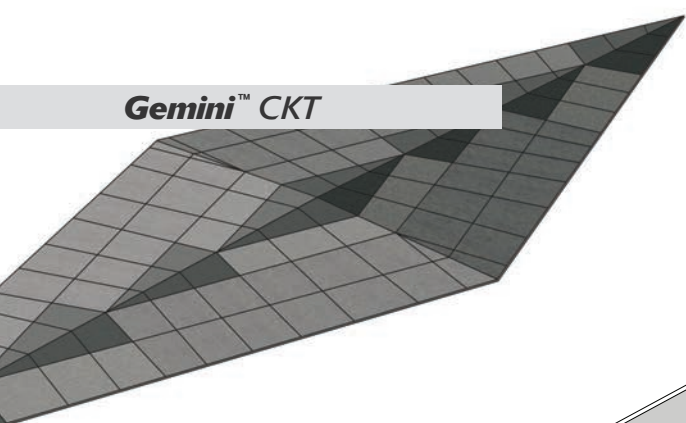
AVERAGE LTR VALUE	THICKNESS		¹ RSI	SLOPE	
				PER FT	PERCENT
4.3	0.0"-1.5"	0.0mm - 38.1 mm	0.76	1.5"	12.5%
5.7	0.0"-2.0"	0.0mm - 50.8 mm	1.00	1.0"	8.0%

LTTR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770. 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. ¹RSI is the metric expression of R-value (m² • K/W).

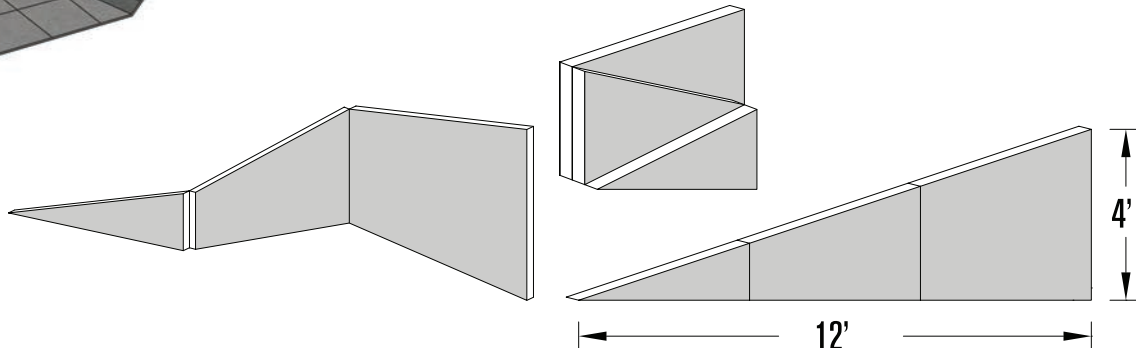


Gemini™ Pre-Cut Crickets are produced with a closed-cell polyisocyanurate (polyiso) foam core integrally bonded to non-asphaltic, glass fiber reinforced organic felt or inorganic coated-glass facers.

- Available with AC Foam®-II and AC Foam®-III Facer Technology
- Hinged Triangular One-Piece Pre-Cut tapered and Fill Panels
- Standardized 3:1 (Length:Width) Ratio
- Slope: 0.5" per ft & 0.25" per ft
- Compatible with Standard Tapered Panels
- Used in Built-Up (BUR), Modified Bitumen, Ballasted Single-Ply, Mechanically Attached Single-Ply and Adhered Single-Ply Roofing Systems



Gemini™ CKT



DIMENSIONS & PACKAGING

PANEL LABEL	THICKNESS			AVG LTR	'RSI	PRODUCT DIMENSIONS		PACKAGING
	MIN	MAX	AVG			WIDTH	LENGTH	PIECES PER BOX
X	0.5" (12.7 mm)	1.5" (38.1 mm)	1.0" (25.4 mm)	5.7	1.00	4' (1220 mm)	12' (3658 mm)	4 PCS
Y	1.5" (38.1 mm)	2.5" (63.5 mm)	2.0" (50.8 mm)	11.4	2.01	4' (1220 mm)	12' (3658 mm)	2 PCS
Q	0.5" (12.7 mm)	2.5" (63.5 mm)	1.5" (38.1 mm)	8.6	1.51	4' (1220 mm)	12' (3658 mm)	2 PCS
2"	2.0" (50.8 mm)	2.0" (50.8 mm)	2.0" (50.8 mm)	11.4	2.01	4' (1220 mm)	12' (3658 mm)	2 PCS

LTR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770. Test samples were third-party selected and tested by an accredited material testing laboratory. The LTR results were reviewed by FM Global and certified by the PIMA Quality Mark Program. 'RSI is the metric expression of R-value ($\text{m}^2 \cdot \text{K/W}$).

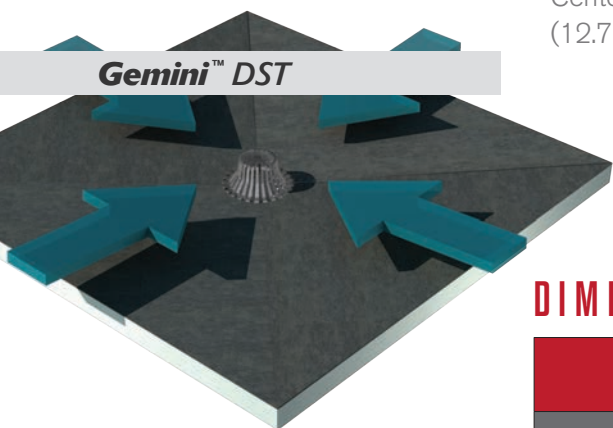


Gemini™ DST

Drain Set

Gemini™ Drain Set is produced with a closed-cell polyisocyanurate (polyiso) foam core integrally bonded to non-asphaltic, glass fiber reinforced organic felt or inorganic coated-glass facers. The dimensionally stable Gemini™ Drain Set provides a 4-way slope to the roof drain.

- Available with AC Foam®-II and AC Foam®-III Facer Technology
- One-Piece Pre-Fabricated Tapered Panel: 4' x 4' (1220 mm x 1220 mm)
- Center Thickness: 0.5" (12.7 mm) Minimum
- Perimeter Thickness: 1.5" (38.1 mm) Maximum
- Slope 0.5" per ft (4.0 %)
- Used in Built-Up (BUR), Modified Bitumen, Ballasted Single-Ply, Mechanically Attached Single-Ply and Adhered Single-Ply Roofing Systems



DIMENSIONS

THICKNESS		PRODUCT DIMENSIONS		PACKAGING SPECIFICATIONS
MIN	MAX	WIDTH	LENGTH	PIECES PER UNIT
0.5" (12.7 mm)	1.5" (38.1 mm)	48" (1220 mm)	48" (1220 mm)	32 PCS

THERMAL DATA

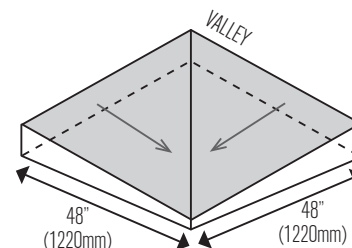
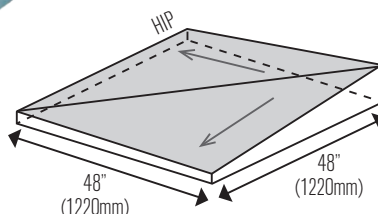
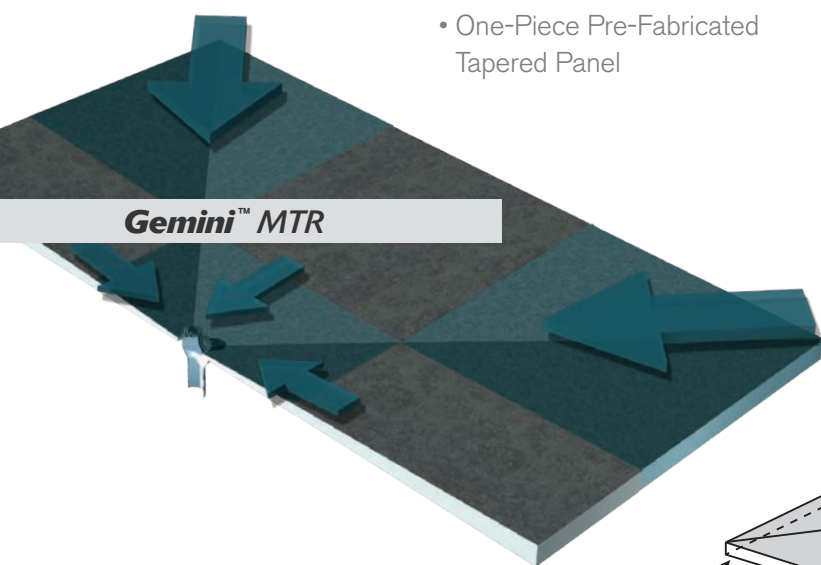
AVG LTR VALUE	THICKNESS		'RSI	SLOPE	
				WIDTH	LENGTH
5.7	0.5" - 1.5"	12.7 mm - 38.1 mm	1.00	0.5"	4.0%

LTTR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770. 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. 'RSI is the metric expression of R-value ($m^2 \cdot K/W$).



Gemini™ One-Piece Miters are produced with a closed-cell polyisocyanurate (polyiso) foam core integrally bonded to non-asphaltic, glass fiber reinforced organic felt or inorganic coated-glass facers.

- Available with AC Foam®-II and AC Foam®-III Facer Technology
- One-Piece Pre-Fabricated Tapered Panel
- Manufactured in a Variety of Slopes and Thicknesses
- Compatible with Standard Tapered Panels
- Used in Built-Up (BUR), Modified Bitumen, Ballasted Single-Ply, Mechanically Attached Single-Ply and Adhered Single-Ply Roofing Systems



THERMAL DATA & DIMENSIONS

PANEL LABEL	THICKNESS			AVG LTR	'RSI	PRODUCT DIMENSIONS	
	MIN	MAX	AVG			WIDTH	LENGTH
X	0.5" (12.7 mm)	1.5" (38.1 mm)	1.0" (25.4 mm)	5.7	1.00	4' (1220 mm)	4' (1220 mm)
Y	1.5" (38.1 mm)	2.5" (63.5 mm)	2.0" (50.8 mm)	11.4	2.01	4' (1220 mm)	4' (1220 mm)
AA	0.5" (12.7 mm)	1.0" (25.4 mm)	0.75" (19.05 mm)	4.3	0.76	4' (1220 mm)	4' (1220 mm)
A	1.0" (25.4 mm)	1.5" (38.1 mm)	1.25" (31.75 mm)	7.1	1.25	4' (1220 mm)	4' (1220 mm)
B	1.5" (38.1 mm)	2.0" (50.8 mm)	1.75" (44.45 mm)	10.0	1.76	4' (1220 mm)	4' (1220 mm)
C	2.0" (50.8 mm)	2.5" (63.5 mm)	2.25" (57.15 mm)	12.9	2.27	4' (1220 mm)	4' (1220 mm)

LTR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770. Test samples were third-party selected and tested by an accredited material testing laboratory. The LTR results were reviewed by FM Global and certified by the PIMA Quality Mark Program. 'RSI is the metric expression of R-value ($\text{m}^2 \cdot \text{K/W}$).



ACFoam® Nail Base

Nailable Roof Insulation

- Thermally efficient closed-cell ACFoam®-II or ACFoam®-III polyisocyanurate (polyiso) insulation board bonded to OSB or CDX plywood on the top face.
- Wood Layer Minimum: 7/16" APA/TECO rated OSB or 19/32" CDX plywood.
- Wood Layer Maximum: 3/4" APA/TECO rated OSB or CDX plywood.
- Polyiso Layer: 1.0" (25.4mm) minimum up to 4.0" (101.6mm) maximum.
- Offered in a variety of composite thicknesses, providing long-term thermal resistance (LTTR) values from 6.3 to 24.2.
- Available as a special order product with FSC® Certified (Requires ACFoam®-III polyiso layer), Fire-Treated, Preservative-Treated and Radiant Barrier OSB or CDX plywood.
- Manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP).
- Approved for use as a non-structural panel in new and re-roofing applications.
- Atlas Nail Base Fasteners are required for all Atlas ACFoam® Nailable Insulation Systems.
- Refer to **Nailable Insulation Guide** for fastening patterns and other application guidelines.



CODES AND COMPLIANCES

- **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 (T 1231)
- **Miami-Dade County Approved** (19/32" CDX Plywood)
- **State of Florida Product Approval** (FL17989)
- **APA/TECO** Rated OSB Nailing Surface
- **U.S. Voluntary Product Standard PS 2** Compliant

PHYSICAL PROPERTIES

(POLYISO PORTION ONLY)

¹Numerical 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.

ACFoam[®] Nail Base

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•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

THERMAL DATA (FLAT)

LTTR VALUE	COMPOSITE THICKNESS		² 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
21.0	*4.0	101.6	3.70	4.375	111.13
24.2	*4.5	114.3	4.25	4.375	111.13

LTTR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770. 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.

²RSI is the metric expression of R-value (m² • 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.



ACFoam® CrossVent®

Nailable Cross Ventilated Roof Insulation

- Thermally efficient cross ventilated non-structural composite insulation. Consisting of ACFoam®-II or ACFoam®-III polyisocyanurate (polyiso) insulation board and OSB or CDX plywood separated with and bonded to 5 individual Expanded Polystyrene (EPS) vent spacer strips.
- Wood Layer Minimum: 7/16" APA/TECO rated OSB or 19/32" CDX plywood.
- Wood Layer Maximum: 3/4" APA/TECO rated OSB or CDX plywood.
- Vent Strip Layer: 1.0", 1.5" or 2.0" EPS
- Polyiso Layer: 1.0" (25.4mm) minimum up to 4.0" (101.6mm) maximum.
- Offered in a variety of composite thicknesses, providing long-term thermal resistance (LTTR) values from 5.7 to 23.6.
- Made to order in 4ft x 8ft (1220mm x 2440mm) composite panels with a nominal thickness of 2.5" to 6.5".
- Atlas Integrity™ EPS Vent Spacers yield a 6000 psf minimum compressive resistance as well as continuous Atlas Nail Base Fastener support across the 4' dimension.
- Available as a special order product with FSC® Certified (Requires ACFoam®-III polyiso layer), Fire-Treated, Preservative-Treated and Radiant Barrier OSB or CDX plywood.
- Manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP).
- Approved for use as a non-structural panel in new and re-roofing applications.
- Atlas Nail Base Fasteners are required for all Atlas ACFoam® Nailable Insulation Systems.
- Refer to **Nailable Insulation Guide** for fastening patterns and other application guidelines.



CODES AND COMPLIANCES

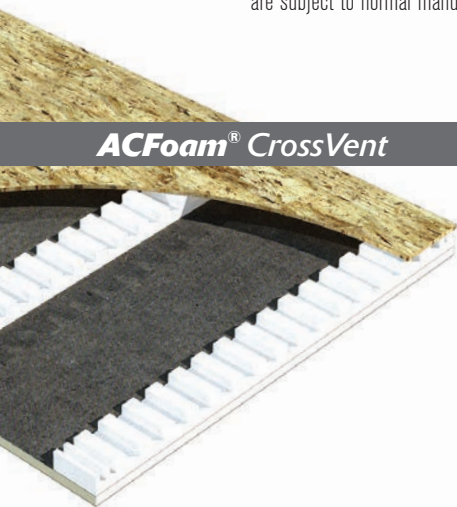
- **ASTM C1289, Type V**
- **UL Standard 1256 Classification** – Construction No. 120, 123 & 458
- **UL Standard 790 (ASTM E108)** For use with Class A, B or C Shingles, Metal or Tile Roof Coverings
- **UL Standard 263 (ASTM E119)** Fire Resistance Classification
- **FM Standard 4450/4470 Approved (1-90, 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 (T 1231)
- **Miami-Dade County Approved** (19/32" CDX Plywood)
- **State of Florida Product Approval** (FL17989)
- **APA/TECO** Rated OSB Nailing Surface
- **FHA** min. Property & **ARMA** Insulated Deck Requirements

PHYSICAL PROPERTIES

(POLYISO PORTION ONLY)

¹Numerical 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.

ACFoam® CrossVent



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

THERMAL DATA

COMPOSITE THICKNESS	IN	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5
	MM	64	76	89	102	114	127	140	152	165
1.0" AIRSPACE	² LTTR	5.7	8.6	11.4	14.4	17.4	20.5	23.6	-	-
	³ RSI	1.00	1.50	2.01	2.53	3.06	3.60	4.15	-	-
1.5" AIRSPACE	² LTTR	-	5.7	8.6	11.4	14.4	17.4	20.5	23.6	-
	³ RSI	-	1.00	1.50	2.01	2.53	3.06	3.60	4.15	-
2.0" AIRSPACE	² LTTR	-	-	5.7	8.6	11.4	14.4	17.4	20.5	23.6
	³ RSI	-	-	1.00	1.50	2.01	2.53	3.06	3.60	4.15

LTTR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770. Test samples were third-party selected and tested by an accredited material testing laboratory. 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.

²Thermal resistance of unsealed air space does not apply. Only LTTR of ACFoam® is reported.

³RSI is the metric expression of R-value (m² • K/W).

NET FREE AREA PER LINEAR FOOT

AIRSPACE DIMENSIONS	1.0"	1.5"	2.0"
NET FREE AREA (NFA/LF)	9.50 sq. inch	14.25 sq. inch	19.00 sq. inch





Atlas Nail Base Fastener

Nailable Insulation Fastener

Specially engineered fastener for attaching Atlas ACFoam® Nail Base and ACFoam® CrossVent® nailable insulation to an approved substrate. Atlas Nail Base Fasteners are required for proper mechanical attachment of all ACFoam® nailable insulation systems.

Material: Case Hardened Tempered Carbon Steel

Head Style/Drive: Pancake Head
with T-30 Internal Drive

Head Diameter: 0.635"

Shank Diameter: 0.190"

Thread Length: 2.750"

Overall Length: 3" thru 18"

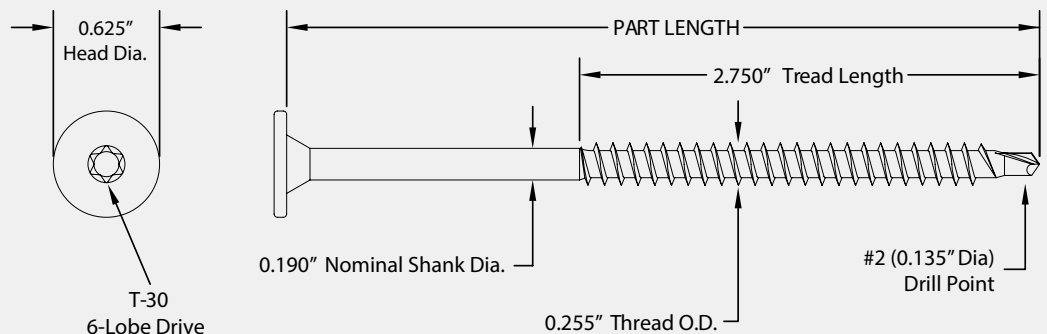
Point: #2 (0.135" dia.) Drill Point

Coating: Epoxy E-Coat (black)

Passes more than 15 cycles (Kesternich) in accordance with DIN 50018

IN	MM	PKG. QTY.
3"	76	500/Pail
3-1/2"	89	500/Pail
4"	102	500/Pail
4-1/2"	114	500/Pail
5"	127	500/Pail
5-1/2"	140	500/Pail
6"	152	500/Pail
6-1/2"	165	500/Pail
7"	178	500/Pail
7-1/2"	191	500/Pail
8"	203	500/Pail
8-1/2"	216	250/Pail
9"	229	250/Pail
10"	254	250/Pail
11"	279	250/Pail
12"	305	250/Pail
13"	330	250/Box
14"	356	250/Box
15"	381	250/Box
16"	406	250/Box
18"	457	250/Box

NOTE: Two T-30 Driver Bits included in each package.



PHYSICAL PROPERTIES

TENSILE STRENGTH	SHEAR STRENGTH	HEAD PULL-THRU VALUE (7/16" OSB)
3,380 lbf.	2,900 lbf	545 lbf

Atlas Nail Base Fastener



LATERAL LOAD RESISTANCE¹

MAIN MEMBER	SIDE MEMBER	LOAD
22 Ga. Corrugated Steel	Nail Base	411 lbf
7/16" OSB	Nail Base	112 lbf

WITHDRAWAL VALUES IN STEEL¹ (80 KSI MIN.)

Type B Corrugated	22 Ga.	20 Ga.	18 Ga.
lbf	510	645	920

¹"Head-Pull-Thru", "Withdrawal", and "Lateral Load" data reflect average ultimate values.

NOTE: All tests were conducted by an independent testing laboratory. Test results are offered only as a guide and are not guaranteed in any way by Atlas Roofing Corporation.

WITHDRAWAL VALUES IN WOOD¹

Specific Gravity	0.67	0.55	0.5	0.46	0.43	0.36	0.31
lb/in.	1429	1173	1067	981	917	768	661



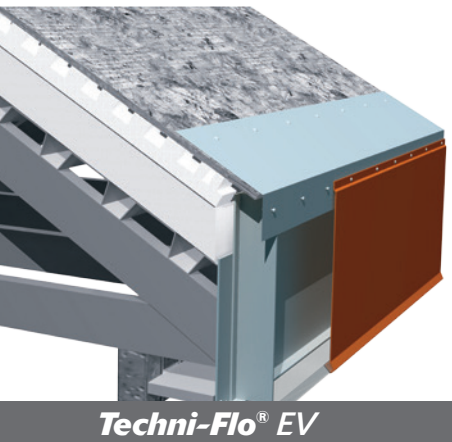
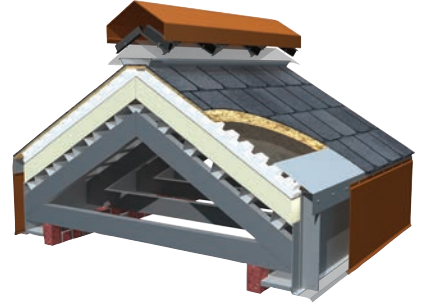


Techni-Flo® EV

Engineered Eave Vent

Techni-Flo® EV (eave vent) features a unique design that promotes positive air intake at the eave, limiting heat build-up, helping to evacuate moisture, thereby ensuring a longer roof system life. Pre-slotted fastening holes on the roof flange and cover allow for thermal movement, as well as ensure proper fastening location.

The Techni-Flo® EV is just one part of the Techni-Flo® Engineered Ventilation System. When combined with the Techni-Flo® RV and ACFoam® CrossVent® Nailable Polyiso insulation, it creates a state-of-the-art ventilation system, specifically designed to create consistent air intake and exhaust under the roof covering, all based on the design conditions of the project. Properly designed and engineered ventilation through the roof system is essential for roof system durability in both commercial and residential steeped-sloped roofing systems.



Techni-Flo® EV

FEATURES & BENEFITS

PRODUCT VERSATILITY

- Engineered and fabricated to individual job requirements
- Custom Colors Available
- Available in .40", .50" and .63" aluminum, 24 ga. steel and alternative materials, such as cedar exterior laminates.

COST SAVING BENEFITS

- Eliminates the need for overhangs and vented soffits, reducing extra labor costs
- Pre-slotted fastening holes on roof flange and cover allow for thermal movement and ensure proper fastening location
- Provided in 12' lengths for faster installation and fewer splice joints

COMPREHENSIVE WARRANTY*

- Ridge and eave vents will withstand winds up to 130mph¹
- Vents will be manufactured free of any defects
- Finish will not fade or crack. Covers repair or replacement of the ridge and eave for 20 years
- Vents will continue to provide designed ventilation for the duration of the warranty*

*See the warranty for terms and conditions.

Techni-Flo® EV is not intended for attachment to open ended metal truss or metal bar joist applications.

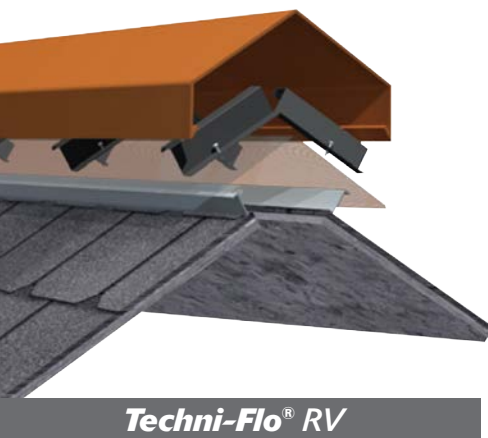
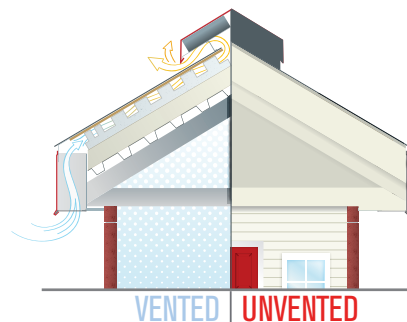
¹Design enhancements required for 130 mph wind speed coverage include, but are not limited to, a minimum .050" aluminum or .063" aluminum cover.

Techni-Flo® RV *Engineered Ridge Vent*



Techni-Flo® RV (ridge vent) accommodates both standing seam and shingled roof applications, and is engineered to individual job requirements. Featuring a snap on cover for ease of installation, this all-metal ridge vent can withstand heavy snow-loads, and will not compress under stress. It also features slotted fastening holes for proper thermal movement and correct fastener placement.

The Techni-Flo® RV is just one part of the Techni-Flo® Engineered Ventilation system. When combined with the Techni-Flo® EV and ACFoam® CrossVent® Nailable Polyiso insulation, it creates a state-of-the-art ventilation system specifically designed to create consistent air intake and exhaust under the roof covering. Properly designed and engineered ventilation through the roof system is essential for roof system durability in both commercial and residential steeped-sloped roofing systems.



FEATURES & BENEFITS

SIZING AND MATERIALS

- Engineered and fabricated to individual job requirements
- Cover is available in .40", .50", and .63" aluminum and 24 ga. steel
- Accommodates both standing seam and shingled roofs
- Custom colors available

EFFICIENT DESIGN

- Easy snap-on cover
- All metal construction withstands heavy snow loads; will not compress under stress
- Available in an alternative Field Roofed Version for shingle attachment
- Slotted fastening holes for proper thermal movement and correct fastener placement and spacing
- Manufactured in 12' lengths – fewer splice joints
- Passed wind-driven rain test

COMPREHENSIVE WARRANTY*

- Ridge and eave vents will withstand winds up to 130mph¹
- Vents will be manufactured free of any defects
- Finish will not fade or crack. Covers repair or replacement of the ridge and eave for 20 years
- Vents will continue to provide designed ventilation for the duration of the warranty*

*See the warranty for terms and conditions.

¹Design enhancements required for 130 mph wind speed coverage include, but are not limited to, a minimum .050" aluminum or .063" aluminum cover.



FR-10 / FR-50

Fire Retardant Slipsheet

DESCRIPTION

FR-10 and FR-50 Fire Retardant Slipsheets enhance the overall fire performance of many conventional commercial roof systems, including metal roofs. FR-10 and FR-50 are coated-glass fiber mats specifically designed for installation over wood decks or certain combustible insulation. FR-50 incorporates a heavier glass mat than FR-10 to provide enhanced fire performance.

RECOMMENDED USES

FR-10 and FR-50 are specifically formulated for use over wood decks or polystyrene insulation. The proprietary flame-retardant coating and glass fiber mat provide protection against flame spread and flame penetration through the roof system. The slipsheet can also act as a barrier between chemically incompatible insulation and roof membranes. In addition, the sheet may be used in multiple layers to achieve certain Class A fire resistance ratings.

INSTALLATION

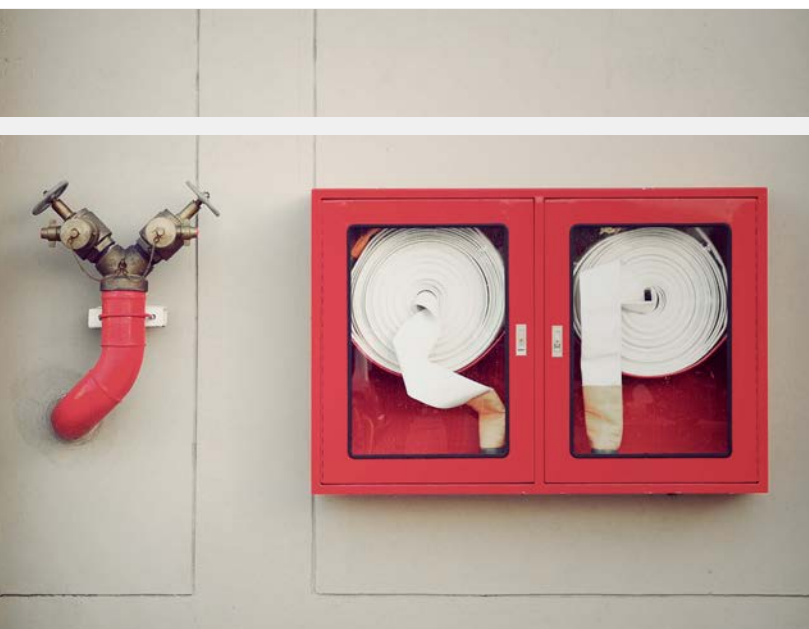
Atlas Fire Retardant Slipsheets are lightweight, easy to handle and, therefore, quicker to install than thermal barriers or coverboards. The slipsheet should be rolled out, overlapping the side and end of the preceding sheet a minimum of two (2) inches. Consult the membrane manufacturer for specific application recommendations (e.g., slipsheet roll direction perpendicular to membrane roll). Mechanical attachment of the slipsheet is not needed in most applications. The patented coating generally provides enough weight to anchor the sheet until the membrane is installed. Mechanical or adhesive attachment may be necessary under windy conditions. Install only as much slipsheet as can be covered by the end of the day.

STORAGE

Factory-applied packaging is intended solely for protection during transit. When stored outdoors or on the job site, the slipsheet rolls should be stacked on pallets at least four inches above ground level and completely covered with a weatherproof covering such as a tarpaulin.

WARRANTY AND LIMITATIONS OF LIABILITY

Other than the aforementioned representations and descriptions, Atlas Roofing Corporation (hereafter, "Seller") makes no other representations or warranties as to the product 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. The Seller shall not be liable for any incidental or consequential damages including the cost of installation, removal, repair or replacement of this product, insulation and/or roof membrane, etc. 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.





TENSILE PROPERTIES

PROPERTY	TEST METHOD	FR-10	FR-50
MACHINE DIRECTION	TAPPI T 1009 (om-06)	37 lbs/in.	64 lbs/in.
CROSS MACHINE DIRECTION	TAPPI T 1009 (om-06)	27 lbs/in.	46 lbs/in.

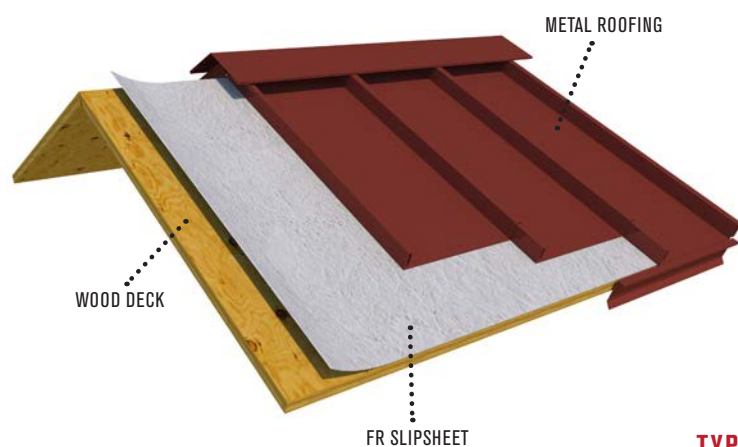


FR-10 / FR-50

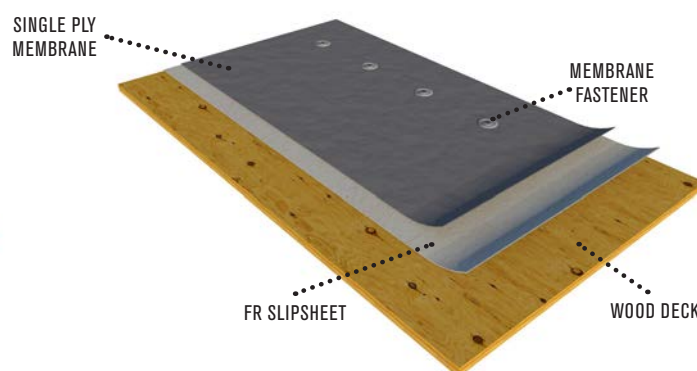
STANDARD SIZES

SLIP SHEET	SQUARES PER ROLL	COVERAGE W/2" LAP	ROLL SIZE	ROLL WEIGHT (APPROX)
FR-10	10 Squares (1000 sq. ft.)	9.64 Square (964 sq. ft.)	48.25" x 250' (1225.55 mm x 76.2 m)	96 lbs.
FR-50	4.2 Squares (420 sq. ft.)	4.02 Squares (402 sq. ft.)	48" x 105' (1219.2 mm x 32 m)	80 lbs.

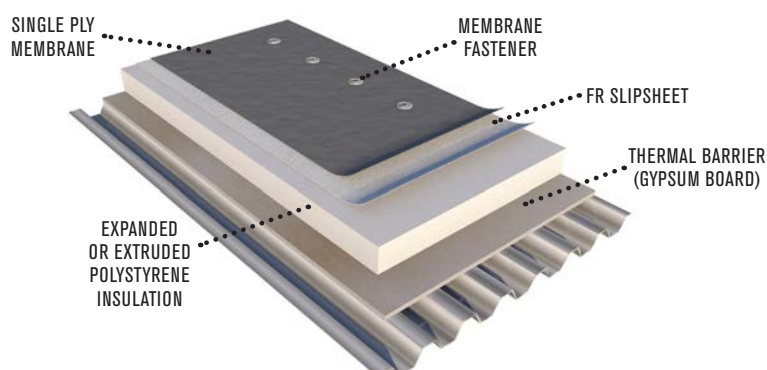
WOOD DECK & METAL ROOFING



TYPICAL COMBUSTIBLE DECK APPLICATION



TYPICAL STEEL DECK & POLYSTYRENE INSULATION



Renderings provided for general assembly clarification.
Atlas recommends that installed slipsheet roll direction have a perpendicular relationship to installed membrane roll direction.

GENERAL INSTRUCTIONS & WARRANTY INFORMATION FOR ACFOAM® PRODUCTS

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® products shall be kept dry before, during and after installation. Install only as much ACFoam® product as can be covered the same day with completed roofing. Although ACFoam® products have 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 TB-5.

MULTI-LAYER INSTALLATION

A two-layer application of ACFoam® products 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 TB-5.

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 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 current NRCA Roofing Manual. ACFoam® products shall not be adhered directly to these decks by any bitumen or adhesive attachment method.

ADHESIVE ATTACHMENT

For installing ACFoam® products to a structural concrete deck, adhesive/bitumen attachment is the recommended method. When using hot bitumen on concrete decks, priming is necessary. Precautions must be taken to ensure that concrete decks have fully hydrated and do not continue to release moisture. Insulation must remain dry before, during, and after installation. Precautions must also be taken to prevent bitumen drippage. When using hot-applied bitumen for attachment of insulation to structural concrete decks and successive insulation layers, the temperature of the bitumen shall be approximately 50°F below the interply hand mopping EVT. The deck shall be dry and care must be taken to apply the bitumen in sufficient quantity to totally cover the available deck surface when applied at the correct temperature (390°F). To ensure embedment, the board shall also be "stepped in" at several points while the bitumen is still hot enough to allow positive attachment. The recommended size of ACFoam® product for hot bitumen attachment is 4' x 4'. When using polyurethane adhesives or cold applied asphalt adhesive, follow the adhesive manufacturer's installation recommendations.

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 outside design temperature must be performed. Consult the NRCA Roofing Manual: Membrane Roofing 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 Roofing Systems for recommendations for the use of a vapor retarder when construction-generated moisture is present. 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 three 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, of the same type.

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.

20-YEAR LIMITED WARRANTY

In response to valid concerns of building designers regarding thermal efficiency of roof assemblies and the long-term insulating value of roof insulation, Atlas offers a 20-year, limited thermal warranty. The "ACFoam® Limited Warranty" places Atlas ACFoam® products above all others and supports the building owner, designer and contractor by backing up thermal performance. This warranty is available to the building owner at the time the building is completed and is transferable to any subsequent owner for the duration of the 20-year period.



CONTACT US:



ATLAS ROOFING CORPORATION

Corporate Sales and Marketing

2000 RiverEdge Parkway, Suite 800, Atlanta, GA 30328
(770) 952-1442

AtlasRoofing.com

Sales Offices:

Camp Hill, PA

(800) 688-1476

Fax: (717) 975-6957



Northglenn, CO

(800) 288-1476

Fax: (303) 252-4417

Diboll, TX

(800) 766-1476

Fax: (936) 829-5363

Phoenix, AZ

(800) 477-1476

Fax: (602) 477-8897

East Moline, IL

(800) 677-1476

Fax: (866) 740-6019



Toronto, ON

(888) 647-1476

Fax: (877) 909-4001

LaGrange, GA

(800) 955-1476

Fax: (706) 882-4047

Vancouver, BC

(855) 265-1476

Fax: (604) 395-8365