FOAM CONTROL® EPS

ROOF INSULATIONS

Foam-Control® EPS Roof Insulations offer versatility for use in virtually all Roofing Membrane Systems. Foam-Control EPS can by supplied as flat board stock, tapered, unfaced, or with factory applied facings or coverboards. Foam-Control EPS meets or exceeds the requirements of ASTM C578, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation." The following technical information is provided to give guidelines for the proper Specifying and Installing of Foam-Control EPS Roof Insulations. The information given is deemed to be timely, accurate, and reliable for the use of Foam-Control EPS Roof Insulations when used as a component in commercially available Roofing Membrane Systems. Roofing Membrane System Manufacturer's specifications must be consulted to determine the proper application and limitations of use for EPS when used as an insulation component in their roofing membrane assemblies.

Foam-Control EPS Properties

Property			ASTM C578						
			Type XI	Type I	Type VIII	Type II	Type IX	Type XIV	Type XV
Density[1], min.		lb/ft³ (kg/m³)	0.70 (12)	0.90 (15)	1.15 (18)	1.35 (22)	1.80 (29)	2.40 (38)	3.00 (48)
Design Thermal Resistance per 1.0 in. thickness	25°F	°F.ft².h/Btu (°K.m²/W)	3.6 (0.63)	4.4 (0.77)	4.6 (0.80)	4.8 (0.84)	5.0 (0.88)	5.0 (0.89)	5.1 (0.90)
	40°F	°F.ft².h/Btu (°K.m²/W)	3.4 (0.60)	4.2 (0.73)	4.3 (0.75)	4.6 (0.81)	4.8 (0.84)	4.8 (0.84)	4.9 (0.85)
	75°F	°F.ft².h/Btu (°K.m²/W)	3.2 (0.57)	3.9 (0.68)	3.9 (0.69)	4.2 (0.73)	4.4 (0.77)	4.4 (0.77)	4.5 (0.78)
Compressive Strength[1] @ 10% deformation, min.		psi (kPa)	5.0 (35)	10.0 (69)	13.0 (90)	15.0 (104)	25.0 (173)	40.0 (276)	60.0 (414)
Flexural Strength[1], min.		psi (kPa)	10.0 (69)	25.0 (173)	30.0 (208)	35.0 (242)	50.0 (345)	60.0 (414)	75.0 (517)
Water Vapor Permeance[1] of 1.0 in. thickness, max., perm			5.0	5.0	3.5	3.5	2.5	2.5	2.5
Water Absorption[1] by total immersion, max., volume %			4.0	4.0	3.0	3.0	2.0	2.0	2.0
Oxygen Index[1], min., volume %			24	24	24	24	24	24	24

Foam-Control EPS has a flame spread index of less than 25 and a smoke-developed index of less than 450 when tested in accordance with ASTM E84/UL 723 for densities from 0.7 - 3.0 lb/ft³. Please refer to UL certificate for complete information.

[1] See ASTM C578 Standard for test methods and complete information.

FOAM CONTROL EPS

ROOF INSULATIONS

Foam-Control EPS is ideal for use in fully adhered, mechanically fastened, or ballasted TPO, PVC, EPDM, and other single ply membranes as well as modified bitumen and built-up roofing.

R-value

The R-value of Foam-Control EPS remains constant and does not suffer from R-value loss. The closed cell structure of Foam-Control EPS contains air and not blowing agents which deplete over time.

Strength and Thermal Performance

Cost effective thermal design is among the highest priorities in construction. Foam-Control EPS insulation products are available in a range of Types necessary to provide both thermal resistance (R-value), structural integrity, and cost effectiveness.

Exposure to Water and Water Vapor

The mechanical properties of EPS are unaffected by moisture. Exposure to water or water vapor does not cause swelling. If condensation occurs within a system due to design and end-use conditions, thermal efficiency will decrease. Upon drying, full efficiency is restored.

Temperature Exposure/Flame Retardants

EPS is able to withstand the rigors of temperature cycling, assuring long-term performance.

Although flame retardants used in the manufacture of EPS provide an important margin of safety, all EPS products must be considered combustible.

The maximum recommended long-term exposure temperature for Foam-Control EPS is 165°F (75°C).

In roof construction requiring hot asphalt, temperatures should not exceed 250° F at the time of direct contact with EPS insulation.

Adhesives, Coatings, and Chemicals

Solvents which attack EPS include esters, ketones, ethers, aromatic, and aliphatic hydrocarbons and their emulsions, among others. If EPS is to be placed in contact with materials (or their vapors) of unknown composition, pretest for compatibility at maximum exposure temperature.

Do not install or use EPS with coal tar pitch, highly solvent-extended mastics, or solvent-based adhesives without adequate separation.

Quality Assurance/Building Code Compliance

Foam-Control EPS meets or exceeds the requirements of ASTM C578, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation." Foam-Control EPS is monitored for Quality Control and Listed by Underwriters Laboratories Inc. and Factory Mutual. The International Code Council Evaluation Service recognizes Foam-Control EPS for building code compliance.

Resistance to Termites, Mold, and Mildew

Foam plastic insulations have been shown to become termite infested under certain exposure conditions. Foam-Control EPS with Perform Guard® provides resistance to termite infestation. Please review literature on Foam-Control EPS with Perform Guard for complete information.

EPS will not decompose and will not support mold or mildew growth. EPS provides no nutrient value to plants or animals.

Weathering

Long-term exposure to sunlight causes yellowing and a slight embrittlement of the surface due to ultraviolet light. This has little effect on mechanical properties. If stored outdoors, cover EPS with light-colored, polyethylene film or tarpaulins.

Green Roofs

High strength Foam-Control EPS Roof Insulations can be supplied for use in Green Roof designs, such as earth protected/ballasted garden roofs. Foam-Control EPS Roof Insulation with compressive strengths of up to 60 psi (414 kPa) are available. Foam-Control EPS is also lightweight helping to lower structural demands on the building.

Foam-Control EPS Tapered can be used below the membrane and drainage medium to provide a positive slope aiding proper water drainage of the system.

Warranty

Foam-Control EPS Licensee plants offer a product warranty ensuring thermal performance, physical properties, and termite resistance.

SPECIFICATIONS

SECTION 07 22 16 ROOF BOARD INSULATION

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes rigid expanded polystyrene (EPS) insulation.
   1. Types of rigid expanded polystyrene include:
      a. Foam-Control EPS Flat roof insulation.
      b. Foam-Control EPS Tapered roof insulation.

B. Related Sections: Sections related to this section include:
   1. Roofing: Division 07 roofing sections.

1.02 REFERENCES

A. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
B. UL 790 - Standard Test Methods for Fire Tests of Roof Coverings.
C. UL 1897 - Uplift Tests for Roof Covering Systems.
D. FM 4450 - Class I Insulated Steel Deck Roofs.
E. UL 1256 - Fire Test of Roof Deck Constructions.

1.03 SUBMITTALS

A. Submit insulation manufacturer's product literature and installation instructions, including:
   1. Physical properties in compliance with ASTM C578 Type specified.
   2. ICC ES Report.
   3. 20-year in-service, non-prorated thermal performance warranty.

B. Shop drawings showing Foam-Control EPS and Foam-Control EPS Tapered insulation board layout.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Deliver insulation in packages labeled with material Type and R-value.
B. Store in original unopened packaging above ground, and protected from moisture and sunlight prior to installation.
C. Product should not be exposed to open flame or other ignition sources.

1.05 WARRANTY

A. Provide Foam-Control EPS 20-year in-service, non-prorated R-value warranty covering the long-term thermal performance of expanded polystyrene insulation.

PART 2 – PRODUCTS

2.01 MATERIAL COMPATIBILITY

A. The insulation must be compatible with all components of the roof assembly and the roofing membrane system.

2.02 MANUFACTURER

Note to Specifier Insert the name and address of the local Licensed Foam-Control EPS supplier.

A. Local Supplier:_____

B. AFM Corporation
   17645 Juniper Path, Suite 260
   Lakeville, Minnesota 55044
   Telephone (800) 255-0176; Fax (952) 892-2074
   www.foam-control.com

2.03 INSULATION

A. Foam-Control EPS in compliance with ASTM C578.
B. Select one or more of the Insulation Types from the listings as follows, as required by the project:
   1. Foam-Control EPS Flat Roof Insulation:
      ASTM C578
      [Type I, 0.90 pcf] [Type VIII, 1.15 pcf]
      [Type II, 1.35 pcf] [Type IX, 1.80 pcf]
      [Type XIV, 2.40 pcf] [Type XV, 3.00 pcf]
      a. Thickness _____.
      b. R-value _____.
   2. Foam-Control EPS Tapered Roof Insulation:
      ASTM C578
      [Type I, 0.90 pcf] [Type VIII, 1.15 pcf]
      [Type II, 1.35 pcf] [Type IX, 1.80 pcf]
      [Type XIV, 2.40 pcf] [Type XV, 3.00 pcf]
      a. Minimum Thickness _____.
      b. Slope _____.
      c. Average R-value _____.

2.04 THERMAL BARRIER

A. A thermal barrier must be installed where required by code.
   Note to Specifier Select the Thermal barrier installation from the listings, as required by the project:
   1. [Metal Deck without a thermal barrier - A thermal barrier is not needed when in compliance with UL 1256.] [Metal Deck with a thermal barrier - The thermal barrier shall be installed in accordance with local building code requirements.] [Concrete Deck - A thermal barrier is not required.] [Combustible Deck - A 15-minute thermal barrier must be installed in accordance with code or excluded where code-recognized waiver of thermal barrier is allowed.]

2.05 ROOFING MEMBRANE

A. Any UL Classified or FM approved single-ply, modified bitumen, or built up roofing.

PART 3 – EXECUTION

3.01 PREPARATION

A. Sweep and remove all loose particles and debris from the roof deck surface. The roof deck should be sound, smooth, and free of moisture.
B. If a vapor retarder is required, it should be applied before the installation of the EPS roof insulation.
C. If a thermal barrier is required, local building codes must be followed regarding thermal barriers separating insulation from the building interior.

3.02 INSTALLATION

A. Lay insulation with all joints tightly butted and attach per membrane manufacturer's specifications.
B. All crickets and/or tapered insulation shall be installed per approved insulation manufacturer's shop drawings.
C. Follow the membrane manufacturer's specifications for fastening requirements for the insulation.
D. Membrane should be installed per membrane manufacturer's specifications.

PREPARATION FOR NEW CONSTRUCTION AND REROOF: All Deck Types

Sweep and remove all loose particles and debris from the roof deck surface. The roof deck should be sound, smooth, and free of moisture. If a vapor retarder is required, it should be applied before the installation of the EPS roof insulation.

If a thermal barrier is required, local building codes must be followed regarding thermal barriers separating insulation from the building interior. All pre-existing and new components of the roof assembly must be EPS compatible.

INSTALLATION GUIDELINES: Concrete Decks (including Gypsum and Cementitious Wood Fiber)

Fully Adhered Single Ply, Modified Bitumen, or Built-Up Roofing

Thermal Barrier: Not required.

Insulation: Place Foam-Control EPS on the deck with all joints tightly butted. All crickets and/or Foam-Control EPS Tapered shall be installed per approved shop drawings. Foam-Control EPS ASTM C578 Type shall be as specified by the membrane manufacturer. Foam-Control EPS attachment shall be either:

a. Mechanically attached with suitable UL or FM listed fasteners. The fastener pattern shall be as specified by the fastener or membrane manufacturer. Note: Mechanical attachment may occur after coverboard placement when approved by the membrane manufacturer.

b. Cold adhesives listed by UL or FM and compatible with EPS. Adhesives must not contain solvents (VOC's) that damage the EPS insulation. Adhesive placement shall be as specified by the adhesive or membrane manufacturer.

c. Hot asphalt used as an adhesive over concrete roof decks. The deck should be primed using an asphalt primer meeting ASTM D41 at a rate of 0.4 gallons per 100 square feet. The prepared deck shall be mopped with EVT temperature steep asphalt at a rate of 25-30# per 100 square feet. Mop an area large enough to accommodate one piece of Foam-Control EPS with care to not contact insulation already in place. Allow asphalt to cool to 225°F to 250°F (107°C to 121°C). Place Foam-Control EPS on the deck with all joints tightly butted. All crickets and/or Foam-Control EPS Tapered shall be installed per approved shop drawings.

d. Hot asphalt used as an adhesive over gypsum and cementious wood fiber decks. Follow NRCA minimum recommendations for roofing felt attachment. The prepared deck shall be mopped with EVT temperature steep asphalt at a rate of 25-30# per 100 square feet. Mop an area large enough to accommodate one piece of Foam-Control EPS with care to not contact insulation already in place. Allow asphalt to cool to 225°F to 250°F (107°C to 121°C). Place Foam-Control EPS on the deck with all joints tightly butted. All crickets and/or Foam-Control EPS Tapered shall be installed per approved shop drawings.

Coverboard: Single ply and modified bitumen systems may require a coverboard. Follow manufacturer's coverboard specifications. Modified bitumen systems that are attached using torch application or with hot asphalt require a coverboard as specified by the membrane manufacturer. Built-up roofing requires a coverboard as specified by the membrane manufacturer. Coverboard attachment shall be either:

a. Mechanically attached with suitable UL or FM listed fasteners. The fastener pattern shall be as specified by the fastener or membrane manufacturer.

b. Cold adhesives listed by UL or FM and compatible with EPS. Adhesives must not contain solvents (VOC's) that damage the EPS insulation. Adhesive placement shall be as specified by the adhesive or membrane manufacturer.

c. Hot asphalt attached coverboard shall be back mopped with EVT temperature steep asphalt. Allow asphalt to cool to 225°F to 250°F (107°C to 121°C) before placing on the Foam-Control EPS. Coverboard shall be placed with all joints tightly butted. Joints shall be staggered from the joints of the Foam-Control EPS.

Note: Coverboard joint taping is required when membrane installation is by means of hot asphalt.

Membrane: Apply fully adhered single ply, modified bitumen, or built-up roofing following membrane manufacturer's specifications.

Ballasted Single Ply Membrane

Thermal Barrier: Not required.

Insulation: Place Foam-Control EPS on the deck with all joints tightly butted. All crickets and/or Foam-Control EPS Tapered shall be installed per approved shop drawings. Foam-Control EPS ASTM C578 Type shall be as specified by the membrane manufacturer.

Membrane: Apply membrane following membrane manufacturer's specifications for application over EPS. Ballast shall be the type, size, and weight as recommended by the membrane manufacturer.

Note: Membrane manufacturer may require a coverboard, separator sheet, or fire resistant layer between the insulation and the membrane. Follow membrane manufacturer's specifications.

INSTALLATION GUIDELINES: Metal Decks

Fully Adhered Single Ply, Modified Bitumen, or Built-Up Roofing

Thermal Barrier: Local building codes must be followed regarding thermal barriers. The International Building Code allows for the elimination of the thermal barrier if the roofing assembly complies with UL 1256. Please refer to UL Roof Deck Construction No. 458 for metal deck installations meeting UL 1256 without a thermal barrier.

Place thermal barrier (if required) on the metal roof deck with all joints tightly butted. The thermal barrier shall be gypsum board, a glass faced gypsum board meeting ASTM C1177, or perlite roof insulation meeting ASTM C728 in sufficient thickness to provide a 15 minute thermal barrier. Thermal Barrier attachment shall be either:

a. Mechanically attached with suitable UL or FM listed fasteners. The fastener pattern shall be as specified by the fastener or membrane manufacturer. Note: Mechanical attachment may occur after insulation and coverboard placement when approved by the membrane manufacturer.

b. Cold adhesives listed by UL or FM and compatible with EPS. Adhesives must not contain solvents (VOC's) that damage the EPS insulation. Adhesive placement shall be as specified by the adhesive or membrane manufacturer.

Insulation: Place Foam-Control EPS on the deck with all joints tightly butted. All crickets and/or Foam-Control EPS Tapered shall be installed per approved shop drawings. Foam-Control EPS ASTM C578 Type shall be as specified by the membrane manufacturer. Foam-Control EPS attachment shall be either:

a. Mechanically attached with suitable UL or FM listed fasteners. The fastener pattern shall be as recommended by the fastener or membrane manufacturer. Note: Mechanical attachment may occur after coverboard placement when approved by the membrane manufacturer.

b. Cold adhesives listed by UL or FM and compatible with EPS. Adhesives must not contain solvents (VOC's) that damage the EPS insulation. Adhesive placement shall be as specified by the adhesive or membrane manufacturer.

c. Hot asphalt over thermal barrier. For best adhesion, thermal barrier should be primed using an asphalt primer meeting ASTM D41 at a rate of 0.4 gallons per 100 square feet. Alternatively, a thermal barrier with a factory applied primer may be used. The thermal barrier shall be mopped with EVT temperature steep asphalt at a rate of 25-30# per 100 square feet. Mop an area large enough to accommodate one piece of Foam-Control EPS with care to not contact insulation already in place. Allow asphalt to cool to 225°F to 250°F (107°C to 121°C). Place Foam-Control EPS on the deck with all joints tightly butted. All crickets and/or Foam-Control EPS Tapered shall be installed per approved shop drawings.

Coverboard: Single ply and modified bitumen systems may require a coverboard. Follow manufacturer's coverboard specifications. Modified bitumen membrane systems that are attached using torch application or with hot asphalt require a coverboard as specified by the membrane manufacturer. Built-up roofing require a coverboard as specified by the membrane manufacturer. Coverboard attachment shall be either:

a. Mechanically attached with suitable UL or FM listed fasteners. The fastener pattern shall be as specified by the fastener or membrane manufacturer.

b. Cold adhesives listed by UL or FM and compatible with EPS. Adhesives must not contain solvents (VOC's) that damage the EPS insulation. Adhesive placement shall be as specified by the adhesive or membrane manufacturer.

c. Hot asphalt attached coverboard shall be back mopped with EVT temperature steep asphalt. Allow asphalt to cool to 225°F to 250°F (107°C to 121°C) before placing on the Foam-Control EPS. Coverboard shall be placed with all joints tightly butted. Joints shall be staggered from the joints of the Foam-Control EPS.

Note: Coverboard joint taping is required when membrane installation is by means of hot asphalt.

Membrane: Apply fully adhered single ply, modified bitumen, or built-up roofing following membrane manufacturer's specifications.

Ballasted Single Ply Membrane

Thermal Barrier: Local building codes must be followed regarding thermal barriers. The International Building Code allows for the elimination of the thermal barrier if the roofing assembly complies with UL 1256. Please refer to UL Roof Deck Construction No. 458 for metal deck installations meeting UL 1256 without a thermal barrier.

Place thermal barrier (if required) on the metal roof deck with all joints tightly butted. The thermal barrier shall be gypsum board, a glass faced gypsum board meeting ASTM C1177, or perlite roof insulation meeting ASTM C728 in sufficient thickness to provide a 15 minute thermal barrier.

Insulation: Place Foam-Control EPS on the deck with all joints tightly butted. All crickets and/or Foam-Control EPS Tapered shall be installed per approved shop drawings. Foam-Control EPS ASTM C578 Type shall be as specified by the membrane manufacturer.

Membrane: Apply membrane following membrane manufacturer's specifications for application over EPS. Ballast shall be the type, size, and weight as specified by the membrane manufacturer.

Note: Membrane manufacturer may require a coverboard, separator sheet, or fire resistant layer between the insulation and the membrane. Follow membrane manufacturer's specifications.

INSTALLATION GUIDELINES: Combustible Decks

Fully Adhered Single Ply, Modified Bitumen, or Built-Up Roofing

Thermal Barrier: Place thermal barrier on the roof deck with all joints tightly butted. The thermal barrier shall be gypsum board, a glass faced gypsum board meeting ASTM C1177, or perlite roof insulation meeting ASTM C728 in sufficient thickness to provide a 15 minute thermal barrier. Thermal Barrier attachment shall be either:

a. Mechanically attached with suitable UL or FM listed fasteners. The fastener pattern shall be as specified by the fastener or membrane manufacturer. Note: Mechanical attachment may occur after insulation and coverboard placement when approved by the membrane manufacturer.

b. Cold adhesives listed by UL or FM and compatible with EPS. Adhesives must not contain solvents (VOC's) that damage the EPS insulation. Adhesive placement shall be as specified by the adhesive or membrane manufacturer.

Note: The International Building Code (IBC) allows the use of wood structural panel sheathing as a thermal barrier in roofing. Refer to the IBC for details.

Insulation: Place Foam-Control EPS on the deck with all joints tightly butted. All crickets and/or Foam-Control EPS Tapered shall be installed per approved shop drawings. Foam-Control EPS ASTM C578 Type shall be as specified by the membrane manufacturer. Foam-Control EPS attachment shall be either:

a. Mechanically attached with suitable UL or FM listed fasteners. The fastener pattern shall be as recommended by the fastener or membrane manufacturer. Note: Mechanical attachment may occur after coverboard placement when approved by the membrane manufacturer.

b. Cold adhesives listed by UL or FM and compatible with EPS. Adhesives must not contain solvents (VOC's) that damage the EPS insulation. Adhesive placement shall be as specified by the adhesive or membrane manufacturer.

c. Hot asphalt over gypsum board, glass faced gypsum board, or perlite thermal barrier. For best adhesion, thermal barrier should be primed using an asphalt primer meeting ASTM D41 at a rate of 0.4 gallons per 100 square feet. Alternatively, a thermal barrier with a factory applied primer may be used. The thermal barrier shall be mopped with EVT temperature steep asphalt at a rate of 25-30# per 100 square feet. Mop an area large enough to accommodate one piece of Foam-Control EPS with care to not contact insulation already in place. Allow asphalt to cool to 225°F to 250°F (107°C to 121°C). Place Foam-Control EPS on the deck with all joints tightly butted. All crickets and/or Foam-Control EPS Tapered shall be installed per approved shop drawings.

d. Hot asphalt without a thermal barrier. Follow NRCA minimum recommendations for roofing felt attachment to deck prior to hot asphalt application. The prepared deck shall be mopped with EVT temperature steep asphalt at a rate of 25-30# per 100 square feet. Mop an area large enough to accommodate one piece of Foam-Control EPS with care to not contact insulation already in place. Allow asphalt to cool to 225°F to 250°F (107°C to 121°C). Place Foam-Control EPS on the deck with all joints tightly butted. All crickets and/or Foam-Control EPS Tapered shall be installed per approved shop drawings.

Coverboard: Single ply and modified bitumen systems may require a coverboard. Follow manufacturer's coverboard specifications. Modified bitumen systems that are attached using torch application or with hot asphalt require a coverboard as specified by the membrane manufacturer. Built-up roofing requires a coverboard as specified by the membrane manufacturer's. Coverboard attachment shall be either:

a. Mechanically attached with suitable UL or FM listed fasteners. The fastener pattern shall be as specified by the fastener or membrane manufacturer.

b. Cold adhesives listed by UL or FM and compatible with EPS. Adhesives must not contain solvents (VOC's) that damage the EPS insulation. Adhesive placement shall be as specified by the adhesive or membrane manufacturer.

c. Hot asphalt attached coverboard shall be back mopped with EVT temperature steep asphalt. Allow asphalt to cool to 225°F to 250°F (107°C to 121°C) before placing on the Foam-Control EPS. Coverboard shall be placed with all joints tightly butted. Joints shall be staggered from the joints of the Foam-Control EPS.

Note: Coverboard joint taping is required when membrane installation is by means of hot asphalt.

Membrane: Apply fully adhered single ply, modified bitumen, or built up roofing following membrane manufacturer's specifications.

Ballasted Single Ply Membrane

Thermal Barrier: Place thermal barrier on the roof deck with all joints tightly butted. The thermal barrier shall be gypsum board, a glass faced gypsum board meeting ASTM C1177, or perlite roof insulation meeting ASTM C728 in sufficient thickness to provide a 15 minute thermal barrier.

Note: The International Building Code (IBC) allows the use of wood structural panel sheathing as a thermal barrier in roofing. Refer to the IBC for details.

Insulation: Place Foam-Control EPS with all joints tightly butted. All crickets and/or Foam-Control EPS Tapered shall be installed per approved shop drawings. Foam-Control EPS ASTM C578 Type be shall as specified by the membrane manufacturer.

Membrane: Apply membrane following membrane manufacturer's specifications for application over EPS. Ballast shall be the type, size, and weight as specified by the membrane manufacturer.

Note: Membrane manufacturer may require a coverboard, separator sheet, or fire resistant layer between the insulation and the membrane. Follow membrane manufacturer's specifications.

UL LISTINGS

Foam-Control EPS is listed in UL Roof Deck Constructions and UL Hourly Designs requiring compliance with UL categories TGFU, BRYX, or TGKX. For complete information, please refer to the UL Roofing Materials and Systems Directory.

BUR membrane NC Class A

Insulation: Any thickness Foam-Control EPS Flat or Tapered with factory laminate or field applied with 1/2" min. perlite, 1/2" min. wood fiber, or 1/4" min. DensDeck
Ply Sheet: Three to five plies Type 15, G1 or G2
Surfacing: Gravel or Type G3 mineral surfaced cap sheet

BUR membrane C Class A

Insulation: Any thickness Foam-Control EPS Flat or Tapered with factory laminate or field applied with 1/2" min. perlite, 1/2" min. wood fiber, or 1/4" min. DensDeck
Ply Sheet: Three to five plies Type 15, G1 or G2
Surfacing: Gravel or Type G3 mineral surfaced cap sheet

Ballasted Single Ply C Class A

Insulation: Any thickness Foam-Control EPS Flat or Tapered with factory laminate or field applied with 1/2" min. perlite, 1/2" min. wood fiber, or 1/4" min. DensDeck
Membrane: Any UL Classified membrane system
Surfacing: River stone (3/4"-1 1/2" diameter) 1000 #/sq.

Ballasted Single Ply NC Class A

Insulation: Any thickness Foam-Control EPS Flat or Tapered
Membrane: Any UL Classified membrane system
Surfacing: River stone (3/4"-1 1/2" diameter) 1000 #/sq.

or

Deck: a. Concrete b. Steel covered with gypsum board or perlite board, 1/2" min. c. Structural decks with all joints covered with Type 30 base sheet, extending 6 in. (min) on each side of joint d. Metal deck covered with cellular concrete, gypsum concrete, vermiculite concrete, or perlite concrete
Insulation: Any thickness Foam-Control EPS Flat or Tapered
Membrane: Any UL Classified membrane system
Surfacing: River stone (3/4"-1 1/2" diameter) 1000 #/sq.

or

Insulation: Any thickness Foam-Control EPS Flat or Tapered with factory laminate or field applied with 1/2" min. perlite, 1/2" min. wood fiber, or 1/4" min. DensDeck
Membrane: Any UL Classified membrane system
Surfacing: River stone (3/4"-1 1/2" diameter) 1000 #/sq.

Fully Adhered Single Ply NC Class A

Insulation: Any thickness Foam-Control EPS Flat or Tapered
Base Sheet: Polyglass Elasatoflex SA V FR Base self adhered
Ply Sheet (optional): Polyglass Elasatoflex SA V FR Base self adhered
Membrane: Polyglass Elastoflex SA V FR self adhered or Polyglass Elastoflex VG FR heat adhered

Fully Adhered Single Ply NC Class A - cont'd

Insulation: Any thickness Foam-Control EPS Flat or Tapered
Base Sheet: Soprema EPS FLAM STICK, self adhered or Soprema EPS FLAM STICK FR, self adhered
Cap Sheet: Soprema "Sopralene Flam 180 FR+ Granular" or "Sopralene Flam 250 FR+ Granular", heat welded

Fully Adhered Single Ply C Class A

Barrier Board: 1/2" Gypsum board or 1/4" G-P Gypsum DensDeck® with 6" offset to plywood joints
Insulation: Any thickness Foam-Control EPS Flat or Tapered
Base Sheet: Polyglass Elastoflex SA FR BASE self adhered
Ply Sheet (optional): Polyglass Elastoflex SA V FR BASE self adhered
Membrane: Polyglass Elastoflex SA V FR self adhered or Elastoflex VG FR heat fused

Modified Bitumen NC Class A, B, or C

Insulation: Any thickness Foam-Control EPS Flat or Tapered with factory laminate or field applied with 1/2" min. perlite, 1/2" min. wood fiber, or 1/4" min. DensDeck
Membrane: Any UL Classified modified bitumen system suitable for use with any roof insulation
Surfacing: See UL membrane listing

Fully Adhered Single Ply NC Class A, B, or C

Insulation: Any thickness Foam-Control EPS Flat or Tapered with factory laminate or field applied with 1/2" min. perlite, 1/2" min. wood fiber, or 1/4" min. DensDeck
Membrane: Any UL Classified single ply membrane system suitable for use with any roof insulation
Surfacing: See UL membrane listing

Mechanically Fastened Single Ply NC Class A, B, or C

Insulation: Any thickness Foam-Control EPS Flat or Tapered with factory laminate or field applied with 1/2" min. perlite, 1/2" min. wood fiber, or 1/4" min. DensDeck
Membrane: Any UL Classified single ply membrane system suitable for use with any roof insulation
Surfacing: See UL membrane listing

Maintenance and Repair Systems Class A - See UL Directory

NC = Non Combustible
C = Combustible

UL LISTINGS - CONT'D

UL Roof Deck Constructions

Foam-Control EPS is suitable for use in the following UL Roof Deck Constructions as specified in the UL Directory:

No. 458, No. 419, No. 374, No. 237, No. 219

UL Hourly Designs

Foam-Control EPS is suitable for use in the following hourly designs as specified in the UL Directory:

D303	D755	D902	D916	D922	D923	D927
D929	D943	D949	J999	K902	P225	P230
P231	P235	P238	P246	P250	P253	P254
P255	P259	P261	P262	P264	P269	P302
P404	P410	P411	P501	P503	P508	P509
P510	P511	P513	P514	P515	P519	P520
P521	P525	P527	P529	P532	P535	P536
P540	P541	P542	P543	P546	P701	P710
P734	P735	P739	P741	P742	P743	P825
P828	P904	P907	P909	P915	P915	P919
P920	P921	P923	P925	P926	P928	P929
P930	P936					

FM APPROVED

Foam-Control EPS is an FM approved insulation for roof construction. Foam-Control EPS is part of numerous FM approved combinations and assemblies. For complete information, please refer to the FM Approval Guide.

Disclaimer

Guidelines provided herein give basic information and illustrate examples of Foam-Control EPS Roofing installation. The basic information provide herein is not intended to cover every potential use and application of the Foam-Control EPS Roofing system. It is the responsibility of the installer to become familiar with his specific application and determine if the Foam-Control EPS Roofing is suitable. By commencing work, the installer accepts full responsibility for the proper and safe installation of the Foam-Control EPS Roofing at his job site. Furthermore, it is the sole responsibility of the installer to meet all federal and local regulatory requirements for job site safety for himself, his workers and any others on the job site while in the execution of all phases of the Foam-Control EPS Roofing installation.

Foam-Control EPS products are manufactured by AFM Corporation licensees.

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FOAM CONTROL EPS

CONTROL,
NOT COMPROMISE.®