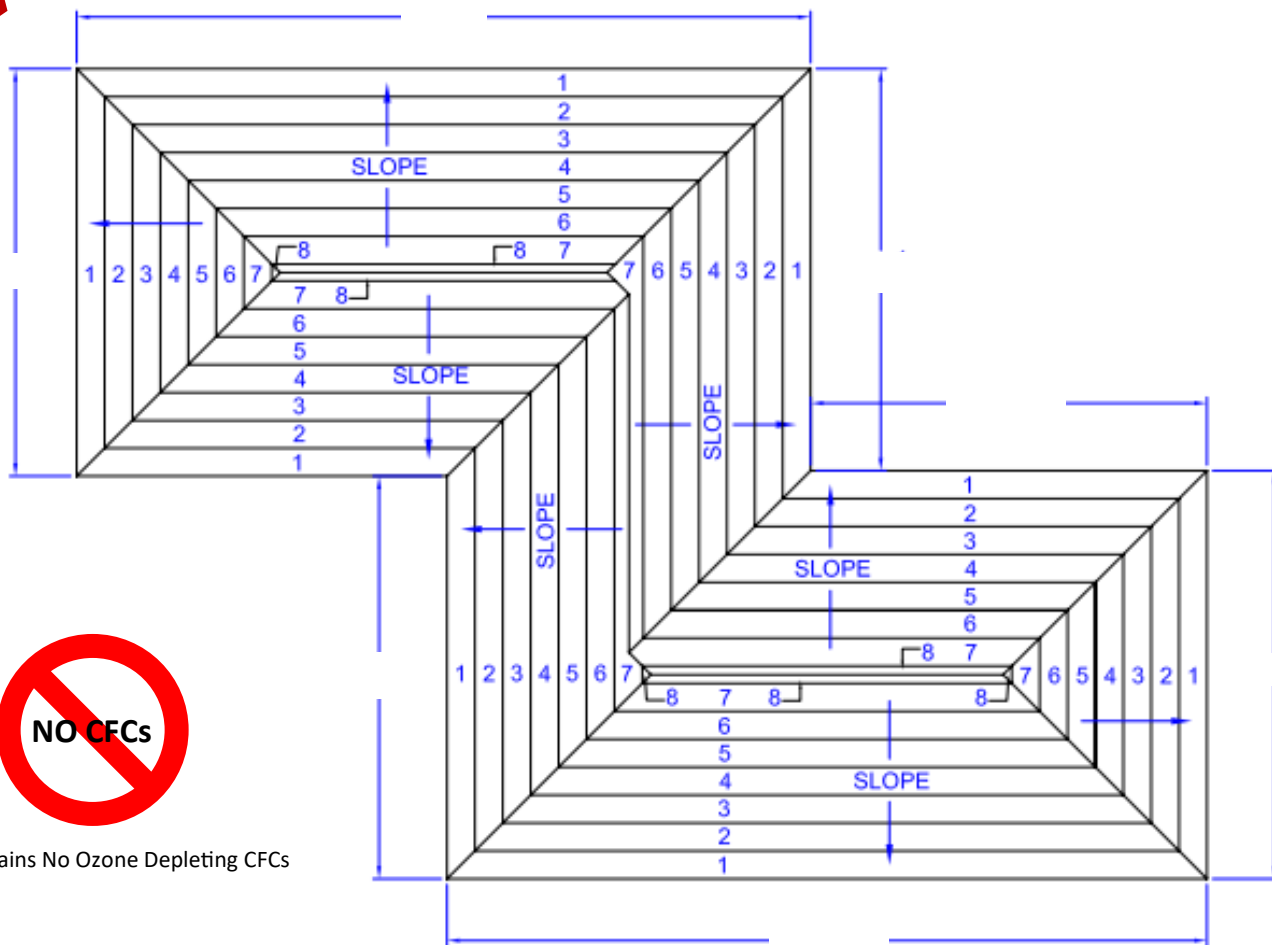


ABT Foam Roofing Insulation



Expanded Polystyrene (EPS) Flat Sheet Insulation



- Sheet Size: 2' x 4', 2' x 8', 4' x 4' & 4' x 8'
- Densities: 1.0#, 1.25#, 1.5# & 2.0# (pcf. nominal)
- R-values See Page 7 (Typical Physical Properties)
- Strength: See Page 7 (Typical Physical Properties)
- Thickness: Any Thickness in 1/4" increments
- Minimum Thickness: 1/2"
- Maximum Thickness: 36"
- Quantity: Any Quantity / No Minimum
- Transportation: 53' Vans, LTL & Customer Pickup

EXPANDED POLYSTYRENE (EPS) ROOFING INSULATION

For more than 40 years, expanded polystyrene (EPS) foam insulation has been used in a wide variety of roofing applications and systems. EPS is versatile and ideal for new construction as well as retrofit. EPS is approved by almost all major roofing systems manufacturers for low slope roofing using flat insulation, tapered systems, crickets & saddles and flute fill.

EPS FOAM INSULATION

Expanded polystyrene (EPS) is a closed cell, light weight, resilient foamed plastic insulation. EPS is able to withstand the abuse of temperature cycling and assuring long term performance. EPS has been an innovative building material since the 1950's and is recognized as a mainstream insulation and building material. EPS is an ideal choice for green building designs, offering environmental advantages that can maximize energy efficiency.

EPS foam insulation is manufactured in accordance with ASTM C578. EPS is manufactured in a wide range of densities from the lower cost effective 1.0# (0.90 pcf density) and up to the high performance 2.0# (1.8 pcf density) meeting the demands of the roofing industry.

EPS flat sheets are manufactured in any thickness in 1/4" thick increments starting at a minimum 1/2" thick and going up to 36 inches thick. A tough and durable laminate can be applied to both surfaces of the EPS in any thickness up to 4" Thick.

EPS ENVIRONMENTAL IMPACT

EPS insulation is an inert, organic material produced from petroleum and natural gas by-products. EPS insulation does not contain CFC's, HCFC's, adhesives or formaldehyde. EPS foam insulation provides no nutritive value to plants, animals, or micro-organisms. It will not rot and is highly resistant to mildew and mold resistant (Tested in accordance with ASTM C1338 "Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings).

LONG TERM INSULATION VALUE

R-value means the resistance to heat flow. The higher the R-value the greater the resistance to heat flow. The thermal performance of EPS insulation, as with any insulation product, depends upon the correct installation using good building practice. When properly installed, the R-value of EPS insulation remains constant for the life of the application. This is because the closed cell structure of EPS only contains air. As a result, the R-value of EPS insulation provided for each product type may be used as a design value without any adjustment for age.

TEMPERATURE CYCLING

EPS is able to withstand the rigors of temperature cycling assuring long term performance. In a series of tests, conducted by the Dynatech Research Development Co., Cambridge, MA, core specimens removed from existing freezer walls, some as old as 16 years, demonstrates EPS withstands freeze-thaw cycling without loss of structural integrity or other physical properties.

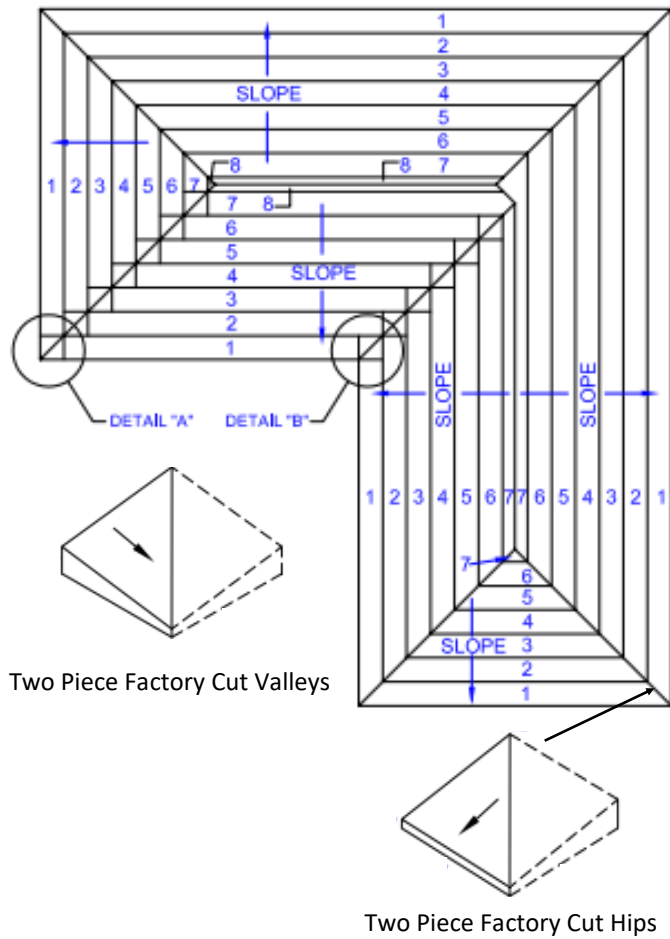
BUILDING AND FIRE CODES

Expanded Polystyrene (EPS) contains a flame retardant. However, it should be considered flammable and should not be exposed to any source of combustion. EPS insulation should be covered with a thermal barrier or otherwise installed in accordance with applicable building code requirements.

STORAGE

Must be stored flat on the original shipping runners or pallet. The material must be elevated above floor, roof or ground level. If stored outdoors, must be covered with UV and water-proof covering. Do not store close to open flame.

Tapered Systems



TAPERED EPS ROOFING SYSTEM

ABT Foam's tapered EPS is a cost effective solution for adding insulation and positive slope to any flat or low slope roof deck. Tapering is ideal for adding positive drainage and is key to maximize the performance and longevity of the roofing system. Tapered EPS can provide positive slope while retaining the structural and economic advantages of a flat roof deck. ABT Foam manufactures custom tapered solutions for almost any project and almost any slope (1/16", 1/8", 1/4", 3/8", 1/2" taper per foot).

TAPERED ROOFING SYSTEMS

- Tapered EPS for new construction or retrofit
- Factory cut hips and valleys
- EPS is installed monolithically, no gluing layers
- Versatile in design and customized to fit any building
- Tapering provides for positive drainage
- Tapered systems produced in custom slopes
- Panel sizes: 4' x 4' and 4' x 8'
- Additional insulation
- Saddles and crickets for sloping roof designs
- Ideal for built-up and single-ply roofing systems
- Shop drawings for fast and easy installation

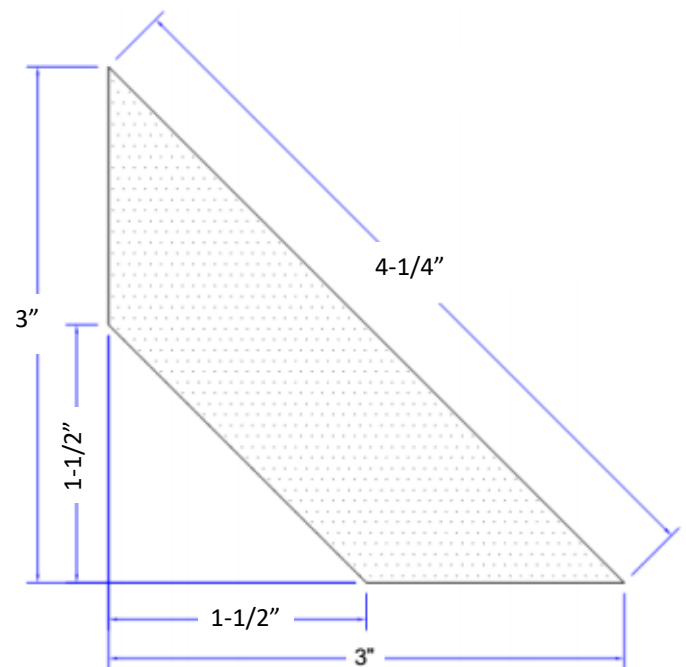
Cant Strips

FEATURES AND BENEFITS

- Cost effective solution for Cant Strip
- EPS foam 1.5# Den., ASTM C578, Type II (1.35 psi min.)
- EPS more moisture resistant than wood fiber or perlite
- EPS foam insulation is mold resistant
- EPS is able to withstand the abuse of temperature cycling
- Light weight, easy to cut and install
- Adds smooth transition from roof surface to wall
- Designed to be tough and durable for Installers

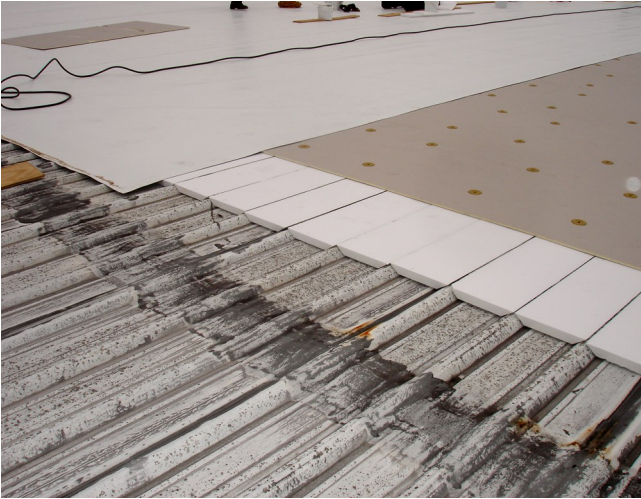
Packaging

	4 1/4" Face Surface	6" Face Surface
Dimension	3" x 3"	4 1/4" x 4 1/4"
Length	48"	48"
Pieces Ctn.	77 Pcs. / Ctn.	30 Pcs. / Ctn.
Carton Size	12" x 24" x 48" (UPS)	12" x 24" x 48" (UPS)



End View - 4.25" Face x 48" Long

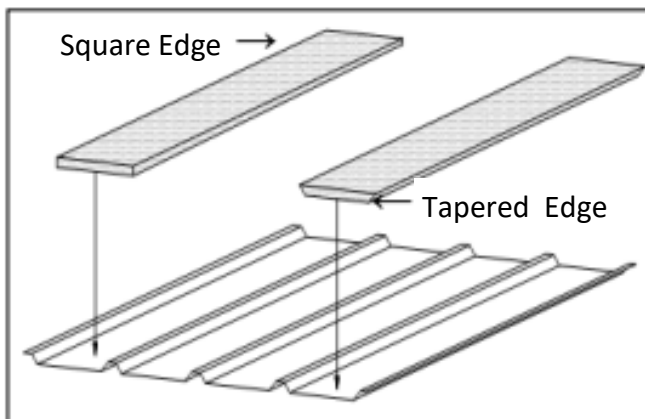
Flute Fill



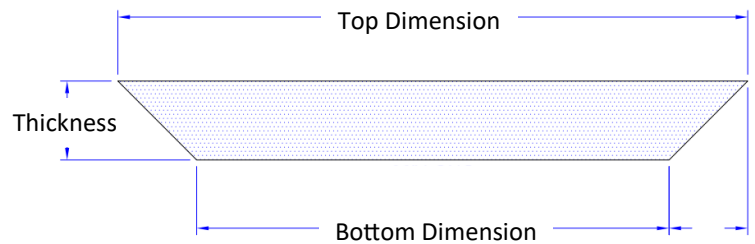
ABT Foam Flute Fill Installation

FLUTE FILL PANELS

- Made to order to fit job specific flutes
- Custom made for metal roof configuration
- Square edge
- Beveled edges
- Any size
- Any thickness
- Adds insulation
- Rigid underlayment
- Levels roof deck
- Fast and easy to install
- Available in 1.0#, 1.25#, 1.5# & 2.0# nominal densities



Flute Fill Options



**End View of Tapered Edge
Panel Lengths 96"**

ABT Foam's EPS Foam Flute Fill

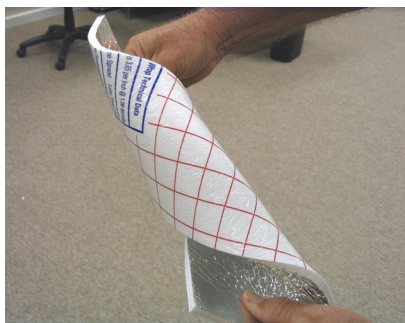
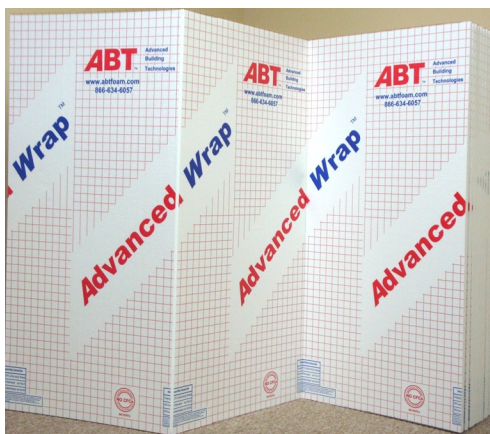
ABT Foam's flute fill panels is a cost effective method of filling metal flutes and leveling the roof surface to accept a traditional single ply, built-up or fluid applied roofing system. Adding flute fill adds strength, durability and solid fill to support the recovery board and foot traffic. The added benefit of installing ABT Foam's EPS flute fill insulation to the metal roof system is increasing the insulation to the roof structure making it more energy efficient.

ABT Foam Flute Fill panels are custom manufactured (made to order) for each project and are available in tapered and square edge. This is a very fast and simple process insuring the flute fill panels fit the metal flutes the specific project. The supplier contacts ABT Foam with the top and bottom dimension then ABT Foam provides a written quotation for this project.

Flute Fill panels are manufactured in 8 foot long panels insuring a fast and easy installation. With the bundle packaging, light weight and durability of EPS foam, it makes a very installer friendly product keeping roof projects on budget for the roofing contractor.

ABT Foam manufactures EPS Flute Fill in four densities offering a range of R-values, psi and durability required for each specific project. The common density is 1.0# nominal density (10-14 psi). The other densities readily available are 1.25# nominal density (13-18 psi), 1.5# nominal density (15-21 psi) and 2.0# nominal density (25-33 psi). For more information refer to the "Typical Physical Properties of EPS" found on page 7.

Advanced Wrap™ Fanfold



Tough • Durable • Flexible

Advanced Wrap™ Fanfold Insulation

- 1.0 mil polypropylene laminate
- Clear printed on front surface
- Metalized polypropylene on back
- Metalized both surfaces (optional)
- 1" grids for nailing and cutting
- Thickness: 1/4", 3/8", 1/2" & 3/4"

WHAT IS ADVANCED WRAP™ FANFOLD

Advanced Wrap fanfold insulation is manufactured from closed cell expanded polystyrene (EPS) ridged foam with polypropylene film facing laminated to both sides of the EPS adding strength and durability. The front surface is clear printed 1.5 mil polypropylene with 1" square grids printed on the surface for aiding in nailing and cutting alignment. The back surface is metalized polypropylene, unprinted. Advanced Wrap can also be manufactured with metalized polypropylene or clear polyester on both surfaces.

Adding a layer of Advanced Wrap™ fanfold insulation to your roofing surface adds an extra layer of protection from hot and cold. It's also ideal for adding a layer of rigid insulation for new construction and retrofit for roofing projects making a smooth and level surface for the roofing membrane.

Packaging & Shipping			LTL Shipments			53' Van Load Shipments		
Thickness	Bundle Size When Unfolded	Sq. Ft. Bundle	Bun./Pallet LTL	Pallet Size LTL	Weight per Pallet / LTL	Bun./Pallet 53' Van	Pallets per 53' Van	Bundles per 53' Van
1/4"	48" tall x 48' long	192	28	48" x 48" x 96"	160 LBS.	30	26	780
3/8"	48" tall x 48' long	192	22	48" x 48" x 96"	145 LBS.	24	26	624
1/2"	48" tall x 48' long	192	14	48" x 48" x 96"	140 LBS	16	26	416
3/4"	48" tall x 48' long	192	10	48" x 48" x 96"	135 LBS	10	26	260

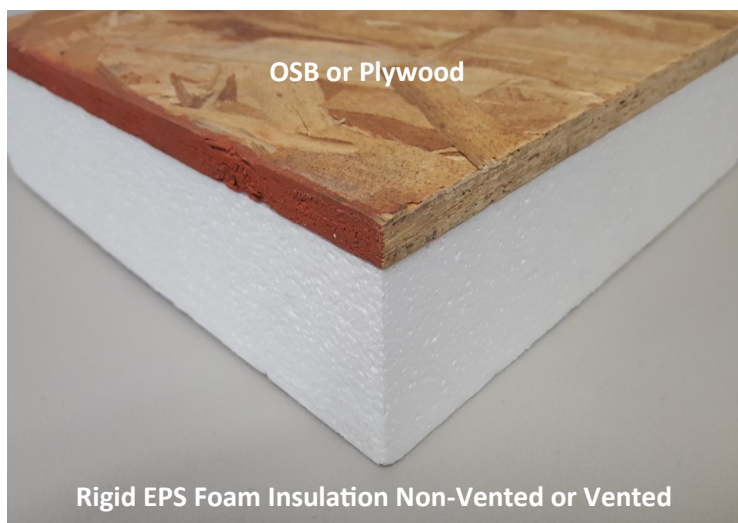
*Other sizes are available upon request

* Pallet Size 48" Wide x 48" Long x 96" Tall

Typical Physical Properties of EPS Foam Insulation

Density Range	ASTM C578	Compressive (psi) 10% Deformation	R-value @ 75° per inch	Moisture Resistance perm. In.	Maximum Service Temperature	ASTM E84 Smoke Developed	ASTM E84 Flame Spread
0.70 - 0.75	Type XI	5 - 9	3.22	5.0	167° Long Term	Less than 450	Less than 25
0.90 - 1.14	Type I	10 - 14	3.85	2.0 - 5.0	167° Long Term	Less than 450	Less than 25
1.15 - 1.34	Type VIII	13 - 18	3.92	1.5 - 3.5	167° Long Term	Less than 450	Less than 25
1.35 - 1.79	Type II	15 - 21	4.17	1.0 - 3.5	167° Long Term	Less than 450	Less than 25
1.80 - 2.20	Type IX	25 - 33	4.35	0.6 - 2.0	167° Long Term	Less than 450	Less than 25

Nail Base



NAIL BASE INSULATION

Nail Base Insulation is a cost effective solution for one step application of EPS foam insulation and wood nailing surface saving time and labor.

Nail Base Insulation is manufactured from closed cell expanded polystyrene (EPS) ridged foam with Oriented Strand Board (OSB) or plywood adhered to the top surface of the EPS adding strength, durability and a nailing and attachment for shingles, metal roofing or single ply roofing system. Nail Base Insulation is manufactured in non-vented and vented square edge panels. Panel size is 48" wide x 96" long and is manufactured in almost any thickness ranging from a minimum of thickness 1-1/2".

EPS & OSB Thickness	Panel Size	Non-vented Panel R-Value	Vented Panel R-value
1.5"	48" x 96"	4.36	Not Available
2"	48" x 96"	6.27	Not Available
2.5"	48" x 96"	8.20	5.32
3"	48" x 96"	10.12	7.24
3.5"	48" x 96"	12.05	9.17
4"	48" x 96"	13.97	11.09
4.5"	48" x 96"	15.90	13.02
5"	48" x 96"	17.82	14.94
5.5"	48" x 96"	19.75	16.87
6"	48" x 96"	21.67	18.79
6.5"	48" x 96"	23.60	20.72
7"	48" x 96"	25.52	22.64
7.5"	48" x 96"	27.45	24.57
8"	48" x 96"	29.37	26.49
8.5"	48" x 96"	31.30	28.42
9"	48" x 96"	33.22	30.34

- R-Values are based on EPS foam insulation, nominal density at 3.85 per inch of thickness @ 75° degrees F and OSB at R-Value 0.51 for a combined R-value
- EPS Foam insulation flame spread is less than 450 (ASTM E84) and smoke developed less than 25
- EPS foam insulation moisture resistance, absorption (vol.) % less than 4.0 (ASTM C272)
- Other thicknesses are available upon request
- Nail Base panels are not structural and must be secured to roof decking with a building code approved mechanical fastener
- Must be secured to roof decking with a building code approved mechanical fastener
- Use in accordance with local building and fire codes

TYPICAL PHYSICAL PROPERTIES OF EPS INSULATION

Specification Reference: ASTM C578

Specification Reference: ASTM C578				1.0# Density	1.25# Density	1.5# Density	2.0# Density	
Property		Units	ASTM Test	Type XI	Type I	Type VIII	Type II	Type IX
Density, Min.		(pcf)	D 303 or D 1622	0.75	0.9	1.15	1.35	1.8
Density Range				0.70	0.90-1.14	1.15-1.34	1.35-1.79	1.80-2.20
Thermal Conductivity	at 25 F	BTU/(hr.)	C177 or C518		0.23	0.22	0.21	0.20
K Factor	at 40 F	(sq. Ft.)(F/in.)			0.24	0.235	0.22	0.21
	at 75 F				0.26	0.255	0.24	0.23
Thermal Resistance	at 25 F				4.35	4.54	4.76	5.00
R-Value*	at 40 F			3.30 - 3.43	4.0 - 4.17	4.20 - 4.25	4.40 - 4.55	4.60 - 4.76
	at 75 F			3.10 - 3.22	3.6 - 3.85	3.9 - 3.92	4.0 - 4.17	4.20 - 4.35
Strength Properties								
Compressive 10% Deformation		psi	D 1621	5.0	10. - 14	13 - 18	15 - 21	25 - 33
Flexural		psi	C 203	10.0	25 - 30	30 - 38	40 - 50	50 - 75
Tensile		psi	D 1623		16 - 20	17 - 21	18 - 22	23 - 27
Shear		psi	D 723		18 - 22	23 - 25	26 - 32	33 - 37
Shear Modulus		psi			280 - 320	370 - 410	460 - 500	600 - 640
Modulus of Elasticity		psi			180 - 220	250 - 310	320 - 360	460 - 500
Moisture Resistance								
WVT		perm. In.	E 96	5.0	2.0 - 5.0	1.5 - 3.5	1.0 - 3.5	0.6 - 2.0
Absorption (vol.)		%	C 272	4.0	less than 4.0	less than 3.0	less than 3.0	less than 2.0
Capillarity					none	none	none	none
Coefficient of Thermal Expansion		in./((in.)(F)	D 696		0.000035	0.000035	0.000035	0.000035
Maximum Service Temperature		Deg. F						
Long-term Exposure				167	167	167	167	167
Intermittent Exposure				180	180	180	180	180
Oxygen Index		%		24.0	24.0	24.0	24.0	24.0
Flame Spread				less than 25	less than 25	less than 25	less than 25	less than 25
Smoke Developed				less than 450	less than 450	less than 450	less than 450	less than 450
Physical Properties chart is reprinted with the permission by The Society of the Plastics Industry, Inc.								

Caution: Expanded Polystyrene (EPS) contains a flame retardant. However, it should be considered flammable and should not be exposed to any source of combustion. EPS insulation should be covered with a thermal barrier or otherwise installed in accordance with applicable building code requirements.

Solvent Attack: EPS is subject to attack by petroleum based solvents. Care should be taken to prevent contact between EPS and these solvents or their vapors.

Storage: EPS foam products must be stored flat on the original shipping runners, pallet or cartons. The material must be elevated above floor or ground level. If stored outdoors, must be covered with UV and waterproof covering. Do not store close to open flame.

Ultraviolet Degradation: Prolonged exposure to sunlight will cause slight discoloration and surface dusting of EPS insulation. The insulating properties will not be significantly affected under normal usage. EPS stored outside should be protected with a light-colored opaque tarpaulin.

"DISCLAIMER: The customer and the customer's architects, engineers, consultants and other professionals are completely responsible for the selection, installation, and maintenance of any product purchased from ABT FOAM, LLC., and EXCEPT AS EXPRESSLY PROVIDED IN ABT FOA'S STANDARD WARRANTIES, ABT FOAM MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE SUITABILITY, DESIGN, MERCHANTABILITY, OR FITNESS OF THE PRODUCT FOR CUSTOMER'S APPLICATION. Copies of ABT FOAM'S standard warranties are available upon request."
ABT FOAM'S Trade Mark Products: Advanced Wrap™, DropSide™ and PreFur™



Manufacturing & Offices



100% Solar Powered

STRENGTH

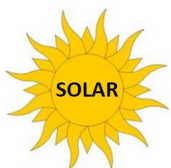
As a part of the ABT family of businesses, ABT Foam has the backing of a seasoned and experienced group of business leaders who know and understand the complexities of today's market place.

DESIGN

ABT Foam has the ability to design and produce a range of expanded polystyrene (EPS) foam products to fit a variety of uses and applications.

INNOVATION

ABT Foam uses highly sophisticated processes and the latest technologies to manufacture and produce one of the most cost effective insulating, fabrication and packaging products in the world.



ABT Foam
1405 Industrial Drive • Statesville, NC 28625
Phone 704-873-9081 • Toll Free 866-634-6057 • Fax 704-873-908
www.abtfoam.com



Made in USA