

# Advanced Wrap™ Fanfold Insulation

# Product Data Sheet Advanced Wrap Fanfold Insulation

## ADVANCED WRAP<sup>™</sup> FANFOLD

Adding a layer of Advanced Wrap<sup>™</sup> fanfold to your home or business adds an extra layer of protection from hot and cold. It's ideal for adding a layer of rigid insulation for new construction and retrofit for siding, sheathing, furring, protection board and low slope roofing projects making a smooth and level surface while adding R-value.

## 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.

#### **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 produced in a wide range of densities from the standard 1.0# nominal density (10-14 psi) up to 2.0# nominal density (25-33 psi). To meet the specifications for fiber cement siding manufacturers, 1.5# nominal density (1.35 density min.) ASTM C578, Type II EPS foam is required. See fiber cement manufacturers technical data reports for their requirements for foam insulation.

#### BENEFITS

- Standard, ASTM C578, Type XI, (0.85 min. density)
- Available, 1.35 pcf density EPS for fiber cement siding
- Available, higher temperature resistant polyester laminate for commercial low slope roofing applications
- Adds cost effective R-value for energy savings
- R-value may be used without adjustment for aging
- EPS foam insulation is mold resistant
- EPS is able to withstand the abuse of temperature cycling
- Designed to be tough and durable for Installers

#### APPLICATIONS

- Retrofit for vinyl and fiber cement siding
- Below grade protection board
- Commercial roofing systems underlayment
- Masonry cavity wall insulation
- Basement interior insulation (behind gypsum)

#### **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 microorganisms. 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 Rvalue 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 riggers 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.





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

PACKAGING & SHIPPING			LTL Shipments			53' Van Load Shipments		
Thickness	Bundle Size When Unfolded	Square Feet Per Bundle	Bun./Pallet LTL Shipment	Pallet Size LTL Shipment	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 INSULATION

Density Range	ASTM C578	Compressive (psi) 10% Deformation	R-value @ 75º 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	167º Long Term	Less than 450	Less than 25
0.90 - 1.14	Type I	10 - 14	3.85	2.0 - 5.0	167º Long Term	Less than 450	Less than 25
1.15 - 1.34	Type VIII	13 - 18	3.92	1.5 - 3.5	167º Long Term	Less than 450	Less than 25
1.35 - 1.79	*Type II	15 - 21	4.17	1.0 - 3.5	167º Long Term	Less than 450	Less than 25
1.80 - 2.20	Type IX	25 - 33	4.35	0.6 - 2.0	167º Long Term	Less than 450	Less than 25

**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.

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