EnergyShield® Pro
Continuous Wall Insulation

DESCRIPTION: Atlas EnergyShield® Pro is composed of a Class A closed cell polyisocyanurate (polyiso) foam core faced with a reflective 12 mil reinforced foil facer on one side and a white 12 mil reinforced acrylic-coated aluminum facer on the other. The blowing agent used to produce the polyiso foam core does not contain any CFCs, HCFCs or HFCs. EnergyShield® Pro has zero Ozone Depletion Potential (ODP) and negligible Global Warming Potential (GWP). EnergyShield® Pro combines high R-value, Class A foam core, durable aluminum facers and water resistive barrier attributes in a high performance rigid wall insulation. EnergyShield® Pro is designed to be used as exterior continuous insulation (CI) or may be reversed for interior applications in compliance with NFPA 286 for interior walls only or ceilings only where a clean white surface is desirable. Panel sizes are 4′ by 8′ or 4′ by 9′. Panels can be supplied in nominal 16″ or 24″ widths for use in masonry cavity wall applications. Custom sizes are also available.

APPLICATION: EnergyShield® Pro is recommended for use in both commercial and residential construction (Type I through Type V) where a Class A flame spread is needed.

Common applications include:

- Exterior or interior continuous insulation (CI) in commercial and residential construction.
- Exterior or interior continuous insulation (CI) for masonry or concrete wall systems, including exterior masonry cavities
- Exterior or interior continuous insulation (CI) in commercial and residential wood stud construction
- Exterior continuous insulation (CI) over wood or gypsum sheathings
- Use over existing cladding to improve energy efficiency with continuous insulation (CI) and provide a level surface prior to installing a new cladding
- Various OEM applications
- Approved for use in attics and crawlspaces without requiring the use of a thermal barrier (ICC-ES A12, Appendix B)
- Interior exposed applications installed with white facer facing outward for interior walls only or ceilings only

ENERGYSHIELD® PRO MEETS OR EXCEEDS THE FOLLOWING PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TEST METHOD MINIMUM REQUIREMENTS
FLAME SPREAD	ASTM E84	< 25
SMOKE DEVELOPMENT	ASTM E84	< 450
MOISTURE VAPOR TRANSMISSION (ASTM E96 DESICCANT METHOD)	ASTM E96	< 0.1 Perm (5.7ng/(Pa▪s▪m2)) Class I vapor retarder per ICC
COMPRESSIVE STRENGTH	ASTM D1621	25 psi
WATER ABSORPTION	ASTM C209	< 1% by Volume *Typical Results < 0.5% by Volume
DIMENSIONAL STABILITY	ASTM D2126	< 1.5% Linear Change *Typical Results < 1% Linear Change
SERVICE TEMPERATURES	-	-100°F to +250°F (-73°C to 122°C)
POTENTIAL HEAT	NFPA 259	12,000 Btu/lb
AUTO-IGNITION TEMPERATURE	ASTM D1929	800°F
RECYCLED CONTENT	-	10.4 -13.8%

THERMAL DATA

R-VALUE[1,2]	NOMINAL BOARD THICKNESS[3]
5.0	0.75″
6.5	1.0″
7.5	1.2″
9.8	1.5″
10.5	1.6″
13.1	2.0″
16.0	2.5″
19.7	3.0″
20.2	3.1″
22.2	3.5″
26	4.0″

[1] Conditioned thermal values were determined by ASTM Test Method C 518 at 75° mean temperature. Test specimens were conditioned in accordance with procedures outlined in ASTM C1289, Section 11.1.2.1
[2] "R" means resistance to heat flow. The higher the R-value, the greater the insulating power.
[3] Other sizes available upon request. Contact your local Atlas sales office.

CODES AND COMPLIANCES

- **ASTM 1289 Type I Class 1 and Type I Class 2**
- **ASTM E2357 Air Barrier Assembly Test –** Passed
- **UL Listed for flame spread,** see BRYX.R13089
- **ANSI/UL 263 (E119)** hourly rated wall approvals (see UL Online Certification Directory)
- **NFPA 285** (consult Atlas for our extensive list of approved assemblies)
- **NFPA 286** Interior walls only or interior ceilings only
- **PE Evaluation of fire Properties,** see TER 1306-03
- **International Building Code (IBC),** Section 2603
- **International Residential Code (IRC),** Section R316
- **Water Resistive Barrier** ICC-ES ESR-1375
- **ASHRAE 90.1 / ASHRAE 189.1 / IECC / IGCC** Continuous Insulation Standards
- **Foil faced insulation** greater than .5″ thick is prescriptively defined as an air barrier material by **IECC and ASHRAE 90.1**
- **Class I vapor retarder** (< 0.1 perm)
- **California Approved** Insulation Registry T 1231
- **Has acheived GREENGUARD GOLD Certification**

PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS: UL.COM/GG UL 2818

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INSTALLATION: EnergyShield® Pro may be installed on the exterior, interior, or within wall assemblies using fasteners, adhesives, girts, or any combination. Some of the common installations for EnergyShield® Pro include, but are not limited to, steel stud walls, over exterior gypsum, masonry walls, over air and vapor barrier membranes, concrete walls, wood stud walls. Also, the dual use allows the product to be used in interior exposed/interior visible applications installed with white facer facing outward for interior walls only or ceilings only. For specific installation instructions, contact Atlas. Check local building codes for thermal barrier requirements when using EnergyShield® Pro.

CONFIGURATION FOR WATER RESISTIVE BARRIER (WRB) AND AIR BARRIER:

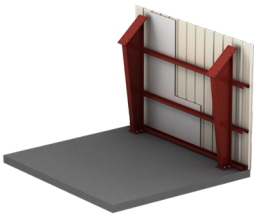
EnergyShield® Pro can be used as part of a WRB and potentially part of an air barrier assembly. EnergyShield® Pro has passed ASTM E2357 as a component of an Air Barrier Assembly. In these types of assemblies it is required that all joints, penetrations and openings be taped or sealed by other means. Atlas recommends flashing EnergyShield® Pro into rough openings and other building transitions. The foil facers are compatible with most flashing or sheathing tape, joint fillers, sealants, and adhesives. Consult the product manufacturer for specific compatibility.

EnergyShield® Pro combines high R-value, durable foil facers, water resistive attributes and a Class A foam core for use in approved NFPA 285 assemblies.

EnergyShield® Pro is a Class A product and may be reversed for interior applications in compliance with NFPA 286 for interior walls only or ceilings only where a clean white surface is desirable.

Concrete Tilt Up Wall

Engineered Metal Building Ceiling



Engineered Metal Building Wall

PRECAUTIONS / LIMITATIONS:

- While EnergyShield® Pro is a Class A foam product, it will burn and may contribute to flames spreading and smoke developing.
- When designing with or using this product always follow local codes, especially with regards to WRB, Air Barrier and Vapor Retarder. Atlas highly recommends the use of a dew point calculation of the proposed wall assembly to determine the types and locations of weather resistive barriers as well as needed R-value to mitigate any condensation potential.
- EnergyShield® Pro is not a structural product so local codes must be followed for required bracing of the frame wall.
- Storage: Prior to installation EnergyShield® Pro should be stored indoors. If left outdoors for any length of time it must be kept dry by covering completely with a waterproof tarpaulin. Store on flat pallets elevated at least 4 inches above the floor or ground and standing water.
- Follow the cladding manufacturer's recommendation for attachment of the cladding.
- Installed EnergyShield® Pro is not intended to be left exposed to the elements in excess of 180 days. Atlas recommends that all wall cladding material be installed within 180 days of installing the EnergyShield® Pro.

WARRANTY: A 15-year limited thermal warranty is available. Please see atlasroofing.com or contact your Atlas representative. Atlas Roofing Corporation assumes no responsibility for building design or construction, which is solely the responsibility of the owner, architect, engineer or contractor.

LOCAL Production and Support: Atlas has the largest production footprint of any polyiso manufacturer for quick access to the products you need.

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