

# ChannelDry® EPS

## Insulation



### Overview

Carlisle's high-performance ChannelDry insulation is composed of lightweight, closed-cell expanded polystyrene meeting the requirements of ASTM C578 Type IX. ChannelDry has excellent dimensional stability, compressive strength, and water-resistant properties. ChannelDry is compatible with mechanically fastened, ballasted, induction welded, and adhered roof systems, including Flexible Fast adhesives. **The use of ChannelDry in conjunction with one-way and two-way relief vents allows the installation of the roof system to begin upon structural cure of concrete.**

### Features and Benefits

- » Compatible with mechanically fastened, ballasted, induction welded, and adhered roof systems
- » Additional layers of SecurShield™ polyiso insulation permitted above ChannelDry
- » Contains up to 25% recycled material
- » 100% recyclable foam core
- » R-value of 7.1 per 2" thick board
- » Facilitates air movement within roofing system
- » Allows installation of roof system to begin upon structural cure of concrete
- » Compatible with structural, structural lightweight, and lightweight insulating concrete
- » Recessed feet along edges of board to facilitate airflow

### Product Characteristics

ChannelDry is offered in a 2" standard thickness and is made with Type IX expanded polystyrene with a nominal density of 2.0 pcf.

### Standard Sizes

| Thickness | Width | Length | Pieces per Bundle |
|-----------|-------|--------|-------------------|
| 2"        | 4'    | 4'     | 24                |

### Installation

#### Installation Considerations

- » Install only as much insulation as can be covered by a roof membrane system and/or made watertight by the end of each day.

#### Limitations

- » ChannelDry cannot be directly exposed to solvent-based products.
- » ChannelDry cannot be used in systems with vapor barriers.
- » ChannelDry cannot be used with water-based adhesives.
- » ChannelDry cannot be used with gypsum based cover boards.
- » ChannelDry cannot be used with GRF (glass reinforced felt) faced insulation.

#### One- and Two-Way Pressure Relief Vents

Carlisle's One- and Two-Way Pressure Relief Vents are engineered to reduce moisture within the roofing system and release trapped air pressure within the building. One-Way Vents allow trapped air pressure to escape; Two-Way Vents (combined with One-Way Vents) help to reduce moisture.

**ChannelDry must be installed in conjunction with Carlisle One- and Two-Way Pressure Relief Vents.** Consult Carlisle for project-specific spacing requirements. Cut a 5"-diameter opening through membrane and insulating material, remove membrane and material to deck, and attach vent to roof deck with appropriate fasteners. Flash in accordance with Carlisle Specifications and Details.

- » **One-way vents (release) shall be installed at a rate of 1 vent every 2,000 square feet.**
- » **Two-way vents (intake) shall be installed at a rate of 1 vent every 8,000 square feet.**
- » **Contact Carlisle for vent number recommendations on projects with individual roof sections less than 2,000 square feet.**

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### Ballasted Systems

End joints must be staggered so they are offset by a minimum of 12" from the end joints in adjacent rows. Insulation should abut tightly against adjacent boards. If insulation is being installed under another layer of insulation, joints must be offset a minimum of 6" between layers. When conditions dictate, in order to prevent wind blow-off or damage during installation, loose-laid insulation should be weighed down or tacked into place with a minimal quantity of mechanical fasteners.

### Mechanically Fastened Systems

End joints must be staggered so they are offset by a minimum of 12" from the end joints in adjacent rows. Insulation should abut tightly against adjacent boards. If insulation is being installed under another layer of insulation, joints must be offset a minimum of 6" between layers. Use an approved fastener of sufficient length to penetrate into or through the deck by the amount prescribed for the specific fastener. ChannelDry should be fastened a minimum of 4 fasteners per 4'x4' board. ChannelDry can be secured to the roof deck with Carlisle's Flexible FAST™ Adhesive.

### Adhered Systems

End joints must be staggered so they are offset by a minimum of 12" from the end joints in adjacent rows. Insulation should abut tightly against adjacent boards. If insulation is being installed under another layer of insulation, joints must be offset a minimum of 6" between layers. ChannelDry can be secured to the roof deck with Carlisle's Flexible FAST Adhesive. Additional layers of insulation and/or coverboards can be installed above ChannelDry using Carlisle Flexible FAST adhesive.

*Review Carlisle specifications and details for complete installation information.*

### LEED® Information

|                                |           |
|--------------------------------|-----------|
| Pre-consumer Recycled Content  | Up to 25% |
| Post-consumer Recycled Content | 0%        |
| Manufacturing Location         | Mead, NE  |

### Typical Properties and Characteristics

| Property                     | Test Method | Value        |
|------------------------------|-------------|--------------|
| Density (nominal pcf)        | ASTM D1622  | 2.0          |
| R-Value (Thermal Resistance) | C518        | 7.1 (per 2") |
| Compressive Strength (psi)   | ASTM D1621  | 25           |
| Flexural Strength (psi)      | ASTM C203   | 50 (min.)    |
| Dimensional Stability (%)    | ASTM D2126  | 2.00 (max.)  |
| Water Vapor Permeance (perm) | ASTM E96    | 2.50 (max.)  |
| Water Absorption (% vol.)    | ASTM C272   | 2.00 (max.)  |
| Capillarity                  |             | none         |
| Flame Spread                 | ASTM E84    | 20           |
| Smoke Developed              | ASTM E84    | 150 – 300    |

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.