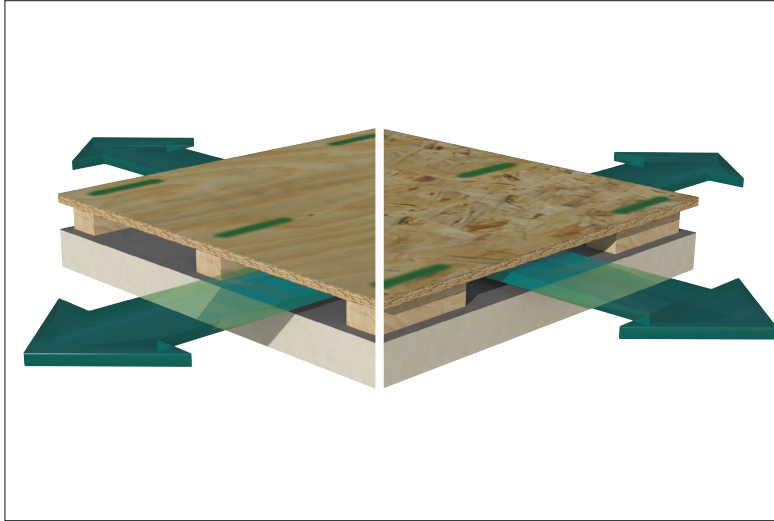


Hunter Panels Cool-Vent

VENTED NAILBASE POLYISOCYANURATE INSULATION PANEL
FOR STEEP SLOPE ROOF APPLICATIONS



HUNTER
Energy Smart Polyiso

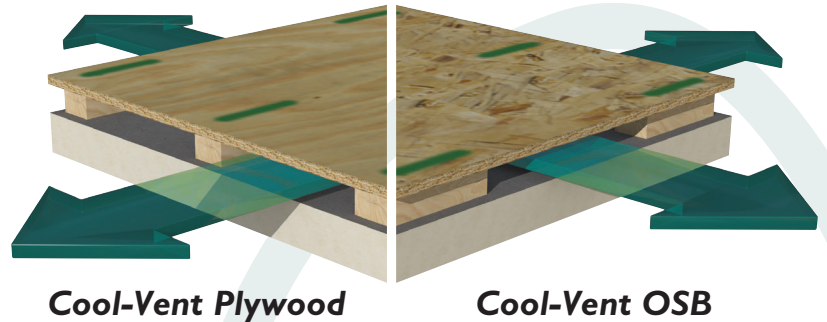
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Hunter Panels Cool-Vent

Vented Nailbase Polyisocyanurate Insulation Panel for Steep Slope Roof Applications

Product Description

Cool-Vent is a venting composite insulation board that consists of a 4'x8' panel of closed cell rigid polyisocyanurate, a middle layer of solid wood spacers, creating a standard 1" air space and a top layer of APA/TECO rated OSB or plywood. Cool-Vent is the environmentally intelligent choice for steep slope roofing applications and is viable in green and sustainable building designs.



Features and Benefits

- Manufactured with NexGen Chemistry: Contains no CFCs, HCFCs, HFCs, is Zero ODP, EPA Compliant and has virtually no GWP
- 75% lateral air movement
- Optimal cooling and ventilation through 92% open air space
- The edges of the wood panels are rabbeted to provide for expansion and contraction of the wood while allowing the foam edges to be installed tightly to achieve thermal integrity across the entire roof deck
- Wood spacers less than 12" apart; minimizes deflection
- Design flexibility: 1.5" and 2" wood spacers available for increased air flow (when eave ridge distance is over 20 feet)
- Exceeds requirements of ARMA Tech Bulletin 211-RR-24 regarding minimum depth of air space

Panel Characteristics

- Available in two grades of compressive strengths per ASTM C1289 Type II, Class 1 Grade 2 (20 psi) or Grade 3 (25 psi)
- Also available in ASTM C1289 Type II, Class 2 (H-Shield CG), Grade 2 (20 psi) or Grade 3 (25 psi)
- Available in 4' x 8' (1220mm x 2440mm) panels in overall thicknesses of 2.5" (64mm) to 5.0" (127mm)
- Multiple Substrate Types Available:

OSB:

- 7/16" or 5/8"

Plywood:

- 5/8" or 3/4" CDX • Fire-Treated

Applications

Cool-Vent is custom built to incorporate the individual specifications of the building designer. Cool-Vent is for use on slopes of 3:12 or greater (for lower slope considerations see H-Shield NB).

Applicable construction types include:

- Non-insulated Cathedral and Vaulted Ceilings
- Exposed ceiling designs beneath steel, plywood, tongue & groove deck types in commercial and residential constructions
- Log Home applications
- Post & Beam constructions

Acceptable Roof Coverings:

- Shingles
- Slate (Natural and Synthetic)
- Tile
- Standing Seam Metal Roof Systems

| COOL-VENT THERMAL VALUES | | | |
|------------------------------------|------|---------------------|----------------------|
| THICKNESS ¹ (INCHES) | (MM) | MINIMUM R-VALUE* | FLUTE SPANABILITY |
| 2.5" | 64 | 5.7 | 2 5/8" |
| 3.0" | 76 | 8.6 | 4 3/8" |
| 3.5" | 89 | 11.4 | 4 3/8" |
| 4.0" | 102 | 14.4 | 4 3/8" |
| 4.1" | 104 | 15.0 | 4 3/8" |
| 4.5" | 114 | 17.4 | 4 3/8" |
| 5.0" | 127 | 20.5 | 4 3/8" |

*Long Term Thermal Resistance Values are based on ASTM C 1289.

¹Thickness is calculated with 7/16" OSB and 1" airspace.
For other dimensions contact Hunter Panels.

Cool-Vent is only manufactured in the sizes listed above and on our packaging and weight chart. R-values other than those listed can be achieved by installing a multi layer system consisting of an additional layer of flat polyiso under Cool-Vent.

Codes and Compliances

- ASTM C 1289 Type II, Class 1 Grade 2 (20 psi) or Grade 3 (25 psi)
- International Building Code (IBC) Chapter 26
- State of Florida Product Approval Number FL 5968
- Miami Dade County Product Control Approved

Underwriters Laboratories Inc Classifications

- TGDY. R20624 Shingle Deck Accessory; Cool-Vent roof insulation is classified for use with any Class A, B, or C asphalt organic shingles, metal or tile roof coverings.
- UL 1256
- Insulated Steel Deck Construction Assemblies – No. 120, 123
- UL 790
- UL 263 Hourly Rated P Series Roof Assemblies

UL Classified for use in Canada

- Refer to UL Directory of Products Certified for Canada for more details

Factory Mutual Approvals

- FM 4450, FM 4470

Potential LEED Credits for Polyiso Use

Energy and Atmosphere

- Optimize Energy Performance

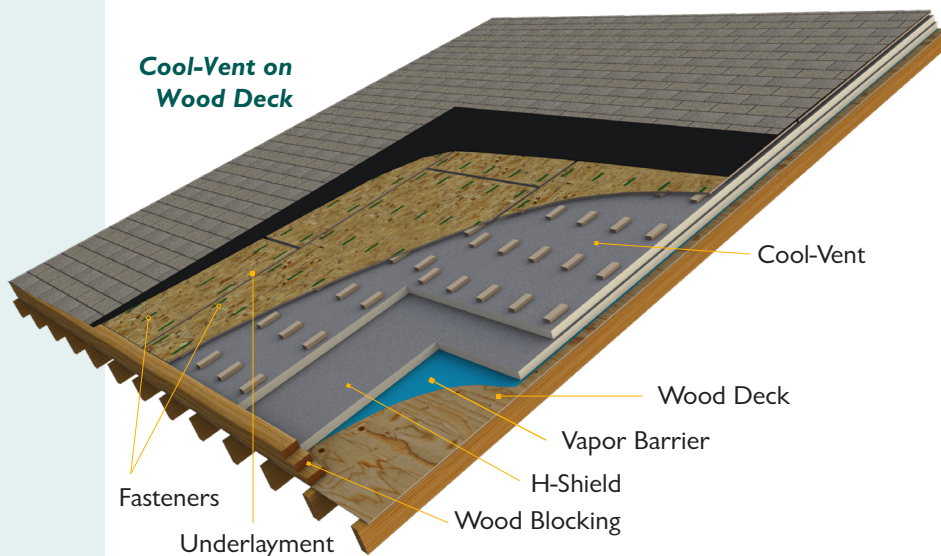
Materials & Resources

- Building Life-Cycle Impact Reduction
- Environment Product Declaration
- Material Reuse
- Recycled Content
- Construction and Demolition Waste Management

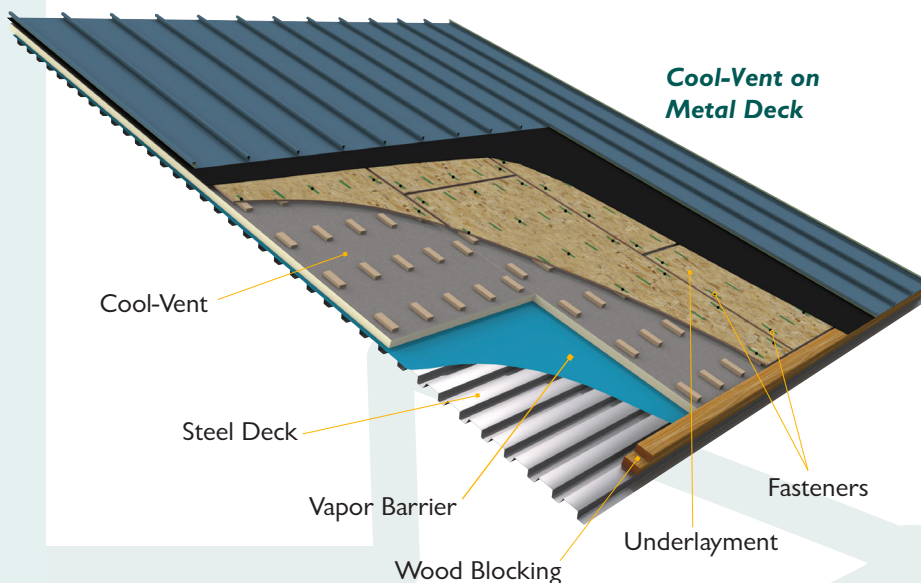
Indoor Environmental Quality

- Thermal Comfort

Cool-Vent on Wood Deck



Cool-Vent on Metal Deck



DEFINITION OF NFA/LF

The Net Free Area of Ventilation Per Linear Foot is derived by multiplying the air space in inches by the length in inches of the Cool-Vent panel. The area of the wood spaces is then subtracted and the difference is divided by 4 or 8.

| AIRSPACE DIMENSION | NFA/LF |
|--------------------|---------------------|
| 1.0" | 7.5/9.5 sq inch |
| 1.5" | 11.25/14.25 sq inch |
| 2.0" | 15.00/19.0 sq inch |

TYPICAL PHYSICAL PROPERTY DATA CHART POLYISO FOAM CORE ONLY

| PROPERTY | TEST METHOD | VALUE |
|-----------------------------|-------------|---|
| Compressive Strength | ASTM D 1621 | 20 psi* (138kPa, Grade 2) |
| Dimensional Stability | ASTM D 2126 | 2% linear change (7 days) |
| Moisture Vapor Transmission | ASTM E 96 | < 1 perm (57.5ng/(Pa•s•m ²)) |
| Water Absorption | ASTM C 209 | < 1% volume |
| Flame Spread** | ASTM E 84 | < 75 |
| Smoke Developed** | ASTM E 84 | < 450 |
| Service Temperature | – | -100° to 250° F (-73°C to 122°C) |

*Also available in 25 psi, Grade 3

**Meets the requirements of the IBC code. For specific Flame Spread or Smoke Developed Ratings please contact the Hunter Panels Technical Department

HUNTER PANELS COOL-VENT

Vented Nailbase Polyisocyanurate Insulation Panel for Steep Slope Roof Applications

INSTALLATION

- Install Cool-Vent only over fully supported structural decking
- **Cool-Vent is NOT a structural panel**
- Cool-Vent must be applied perpendicular to the flutes in steel deck applications
- The use of 15# and 30# roofing felt is not recommended under asphalt shingles when using Hunter Panels Cool-Vent product
- Install Cool-Vent on slopes 3:12 or greater

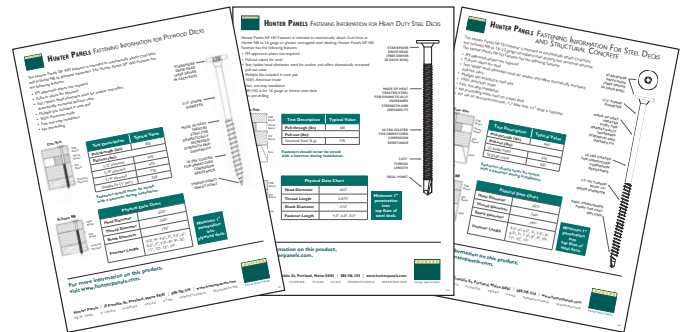
NOTE: When installing Cool-Vent over an acoustical deck, check local codes for fire ratings. The use of a 5/8" minimum gypsum fire barrier may be required.

The Use of Synthetic Underlayments

The use of synthetic underlayments is becoming an industry norm (for steep slope application). Hunter Panels strongly suggests the use of a synthetic underlayment under asphalt shingles unless otherwise specified by the shingle manufacturer. Synthetic underlayments provide excellent water resistance and absorb no moisture.

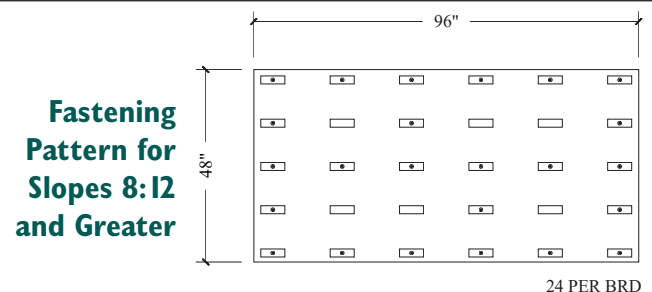
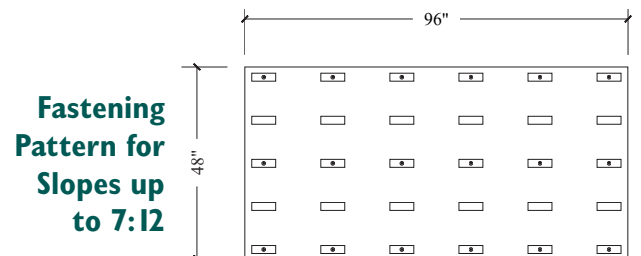
Vapor Retarders

In building construction, vapor retarders are used to inhibit or block the passage of moisture into roofing assemblies. Vapor barriers also serve as air barriers to limit the movement of moisture-laden air from the interior to the exterior. This is especially important during the construction phase where excessive moisture drive is present. To determine whether a vapor retarder is necessary, we recommend that calculations on the building's interior relative humidity, interior temperature conditions and outside temperature fluctuations during the various seasons be performed prior to the completion of the design. Excessive moisture migration can cause unwanted condensation that will potentially damage the system or infiltrate the occupied space. Hunter Panels strongly suggests the use of a vapor retarder with a perm value of 0.5 or less on all projects except in extreme cooling conditions. Consult a licensed design professional, architect or engineer to establish whether or not a vapor retarder is necessary and to specify its type and location within the assembly. This criteria varies with geographical location and is therefore specific to each project.



Fastening Guidelines

Hunter Panels requires the use of the Hunter Panels SIP SD Panel Fastener for steel deck applications, the SIP WD for plywood deck applications, and SIP HD for heavy duty steel decks. See recommended fastening patterns below:



Refer to **Cool-Vent Installation Guide** for application specific installation instruction & fastener information. Access a digital copy at www.hunterpanels.com or scan this QR code



WARNINGS AND LIMITATIONS

Insulation must be protected from open flame and kept dry at all times. Install only as much insulation as can be covered the same day by completed roof covering material. Hunter Panels will not be responsible for specific building and roof design by others, for deficiencies in construction or workmanship, for dangerous conditions on the job site or for improper storage and handling. Technical specifications shown in this literature are intended to be used as general guidelines only and are subject to change without notice. For more information refer to the Storage and Handling Technical Bulletin at www.hunterpanels.com, or refer to PIMA Technical Bulletin No. 109: *Storage & Handling Recommendations for Polyiso Roof Insulation* at www.polyiso.org.