

ANDERSON, ECKSTEIN AND WESTRICK

RFI NO:		DATE TRANSMITTED:	
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RESPONSE REQUESTED FROM:	<input type="checkbox"/> Civil	<input type="checkbox"/> Struct.	<input type="checkbox"/> Arch.	<input type="checkbox"/> Mech.	<input type="checkbox"/> Elect.	<input type="checkbox"/> Other:	
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BRIEF DESCRIPTION OF RFI <u>[give details below]:</u>	
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PROVIDE	<u>Section No.</u>		<u>Section No.</u>		<u>Section No.</u>	
SPECIFICATION	<u>Para. No.</u>		<u>Para. No.</u>		<u>Para. No.</u>	
REFERENCES						

PROVIDE DRAWING REFERENCES:

[Note: Request only one interpretation per RFI]

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Requested by:

NAME:		DATE:	
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ATTACHMENTS: ☐ YES ☐ NO

After saving file, e-mail as attachment to e-mail.

HCMA/AEW response:

Date Received:	
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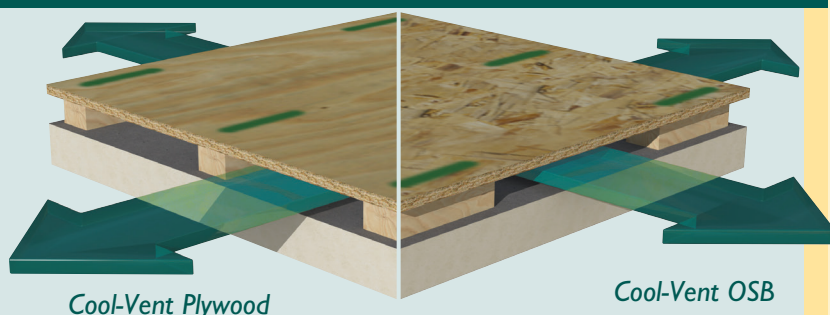
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ATTACHMENTS: ☐YES ☐NO

<u>Date Transmitted:</u>		<u>Indicate the recipients and the means of transmittal below:</u>			
<u>Distributed to:</u>		<u>E-mail</u>	<u>Fax</u>	<u>Hand</u>	<u>Mail</u>
Cedroni Associates: R. Cedroni, B. Lundberg		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HCMA: L. Martin, J. Rickle		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AEW: Brett McDonald		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Cool-Vent

Ventilated Nailbase Polyiso Panel



COOL-VENT THERMAL VALUES

THICKNESS [†] (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.

[†]Thickness 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.

PRODUCT DESCRIPTION

Cool-Vent is a venting composite insulation board that consists of a 4'x8' panel of rigid polyiso, 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, 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 V, Class 1 Grade 2 (20 psi) or Grade 3 (25 psi)
- Also available in ASTM C1289 Type V, 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

ROOFING 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, wood, tongue & groove deck types in commercial and residential constructions
- Log Home applications
- Post & Beam constructions

Acceptable Roof Coverings:

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

Codes and Compliances

- ASTM C 1289 Type V, 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 Metal 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

LEED Potential Credits for Polyiso Use

Energy and Atmosphere

- Optimize Energy Performance

Materials & Resources

- Building Life-Cycle Impact Reduction
- Environmental Product Declarations
- Materials Reuse
- Recycled Content
- Construction and Demolition Waste Management



TYPICAL PHYSICAL PROPERTY DATA CHART PER ASTM C 1289 – 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.

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

The incorporation of a vapor barrier or retarder within the roofing assembly is highly recommended when the project is located in Zones 4 - 8 as determined by the International Code Council Dept. of Energy NW National Lab of the United States (map located at www.polyiso.org). Consult a licensed design professional, architect or engineer to establish whether or not a vapor barrier is necessary and to specify its type and location within the system. This is especially important during the construction phase when excessive moisture drive is present. Hunter Panels recommends that a dew point calculation be performed prior to the installation of any product. This calculation is based on the buildings interior relative humidity, interior temperature conditions and outside temperature. Excessive moisture migration and temperature fluctuations during construction will potentially damage the system and cause unwanted condensation and aesthetic anomalies.

Fastening Guidelines

Hunter Panels requires the use of the Hunter Panels SIP SD Panel Fastener for steel deck applications, the SIP WD for wood deck applications, and SIP HD for heavy duty steel decks. See *Fastening Pattern Guide* for recommended fastening patterns.

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.

Definition of NFA/LF

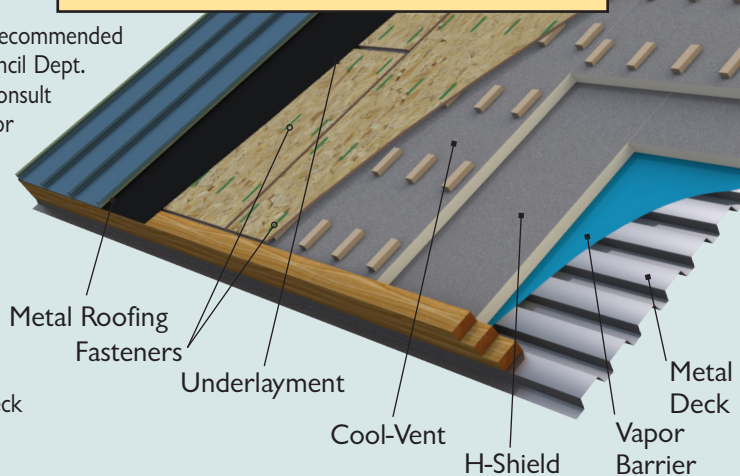
The Net Free Area of Ventilation Per Linear Foot is derived by multiplying the air space in inches by the length in inches of the Cool-Vent panel. The area of the wood spaces is then subtracted and the difference is divided by 4 or 8.

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

Cool-Vent

Refer to Cool-Vent Installation Guide for application specific installation instruction & fastener information.

(access a digital copy at www.hunterpanels.com or scan the QR code below)



Scan to access
online Installation Guide

H U N T E R
Energy Smart Polyiso

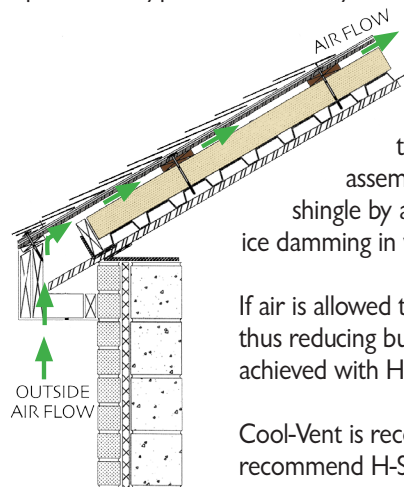
HUNTERPANELS.COM

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Prolong the life of your steep slope roof with proper ventilation by using Hunter Panels Cool-Vent.

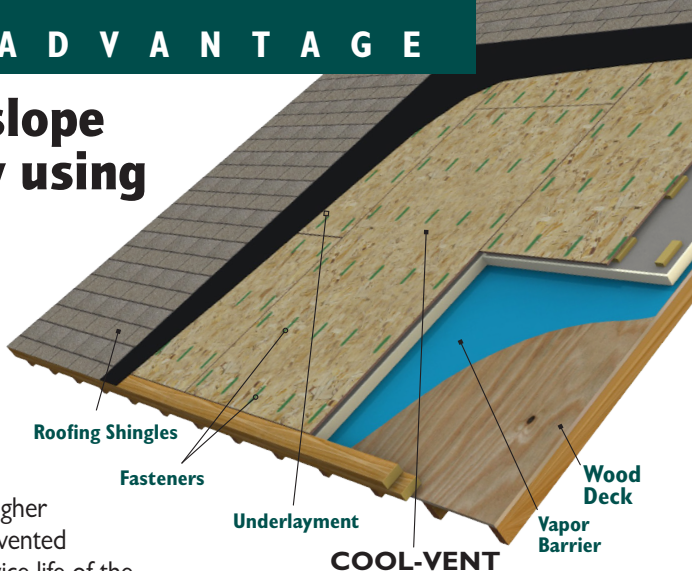
Hunter Panels Cool-Vent can be used with a variety of finished roof assemblies including all types and weights of Shingles, Slate, Tile and Metal Roof Systems. The majority of shingle manufacturers today require some type of ventilation system under their shingles in order to achieve the warranty



Shingles on unvented roof assemblies register at higher temperatures than shingles on vented assemblies. This can reduce the service life of the shingle by approximately 10% and can cause buckling and ice damming in winter climates.

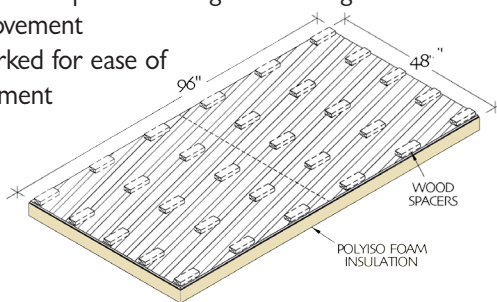
If air is allowed to flow under the shingles the temperature on the roof will remain cooler and more consistent thus reducing buckling and thermal breaks. This type of ventilation system under the finished roof can be achieved with Hunter Panels Cool-Vent.

Cool-Vent is recommended on Steep Slope applications of 3:12 slope or greater. For slopes less than that we recommend H-Shield NB, a non-vented nailable polyiso insulation panel.



COOL-VENT PRODUCT ADVANTAGES

- Cross Directional airflow, necessary for valleys and dormers
- 92% open airspace for optimal cooling and venting
- 75% lateral air movement
- Spacer blocks marked for ease of mechanical attachment
- The edges of the wood are rabbeted to provide for expansion and contraction while allowing the foam edges to be installed tightly to achieve thermal integrity across the entire roof deck



VENTING ADVANTAGES

- Provides the highest R-Value for insulation while providing above deck venting
- Extends the life of the finished roof system by circulating air through the soffit and ridge vent
- Reduces Heat loss and exhausts excess moisture
- Aids in the prevention of ice dams – A Technical Topic bulletin available at HunterPanels.com

APPLICATIONS

- Perfect for cathedral and vaulted ceilings, post & beam construction, conditioned attic space and log home applications
- 2 layer systems recommended: base layer of flat polyiso (H-Shield or H-Shield CG) with second layer Cool-Vent, staggering joints
- Complete *Cool-Vent Installation Guide* available at hunterpanels.com



Hunter Technical Sales available to assist with your application questions at 888.746.1114

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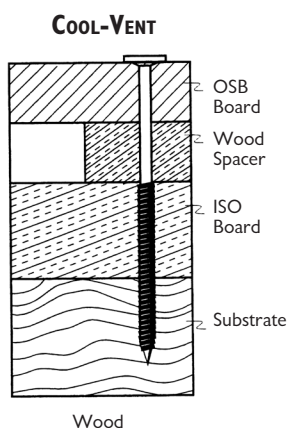
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HUNTER PANELS FASTENING INFORMATION FOR WOOD DECKS

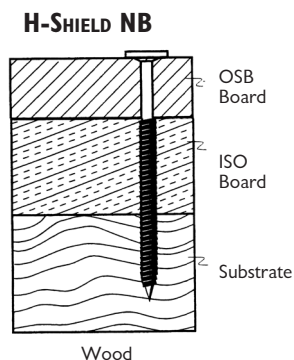
The Hunter Panels SIP WD Fastener is intended to mechanically attach Cool-Vent and H-Shield NB to wood substrates. The Hunter Panels SIP WD Fastener has the following features:

- FM approved – plates not required
- Star/spider head eliminates need for washer and offers dramatically increased pull-out value
- 100% American made
- Fast, One-Step installation
- No pre-drilling
- Multiple bits included in each pail

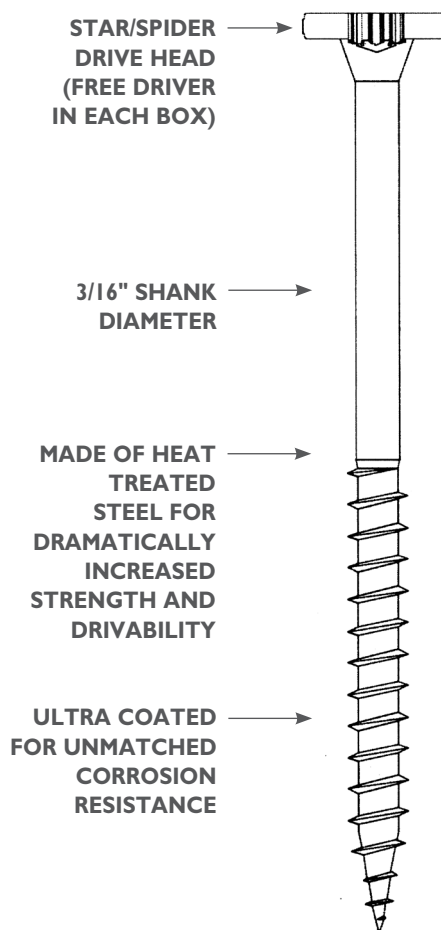


Test Description	Typical Value
Pull-through (lbs)	630
Pull-out (lbs):	
1/2" plywood	442
5/8" plywood	459
3/4" plywood	710
Douglas Fir (1" pen.)	768

Fasteners should never be struck with a hammer during installation.



Physical Data Chart	
Head Diameter	.625"
Thread Diameter	.240"
Shank Diameter	.190"
Fastener Length	3.5", 4", 4.5", 5", 5.5", 6", 6.5", 7", 7.5", 8", 9", 10", 11", 12", 13", 14"



Minimum 1" penetration into wood deck.

For more information on these products, visit www.hunterpanels.com.