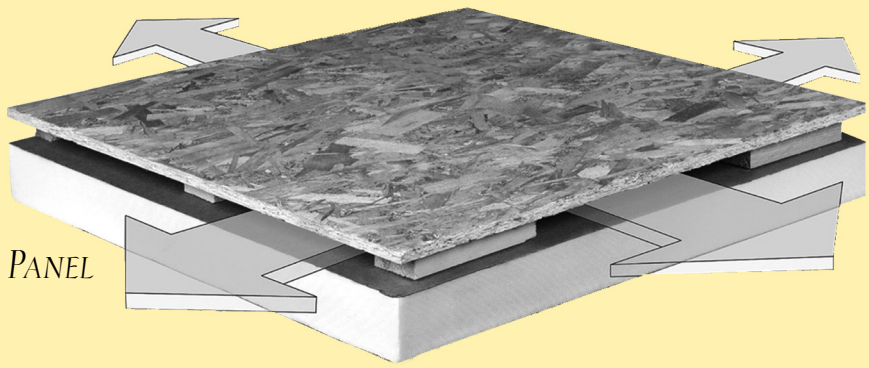


# COOL-VENT

VENTILATED NAILBASE  
INSULATION PANEL



## PRODUCT DESCRIPTION

Cool-Vent is a venting composite insulation board that consists of a 4' x 8' panel of NexGen Chemistry™ polyiso, a middle layer of solid wood spacers 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

The life of exterior roofing materials can be foreshortened by heat build up within the assembly. Cool-Vent's primary function is to simultaneously provide thermal insulating properties and promote air circulation within that assembly. Hunter Panels' unique design achieves over 92% open space for free air movement **and** cross ventilation.

### Cool-Vent Features:

- 75% lateral air movement
- Improved cooling and ventilation due to 92% open air space
- Nailable surface (OSB or plywood) rabbeted 1/8" on all sides to allow for substrate expansion
- 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 28 feet)
- Exceeds requirements of ARMA Tech Bulletin 211-RR-24 regarding minimum depth of air space

## 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 (Architectural and/or Dimensional recommended)
- Slate (Natural and Synthetic)
- Tile
- Metal Roof Systems

## COOL-VENT PANEL CHARACTERISTICS

- 48" x 96" panels (1220 mm x 2440 mm)
- ASTM C1289-06, Type II Class 1 Grade 2 (20 psi minimum)
- Available with FSC Certified OSB or plywood upon request
- Multiple Substrate Types Available:

#### OSB:

- 7/16" or 5/8"
- fire-treated

#### Plywood:

- 5/8" or 3/4" CDX
- fire-treated

## COOL-VENT THERMAL VALUES

THICKNESS <sup>†</sup> (INCHES)	(MM)	MINIMUM R VALUE*	FLUTE SPANABILITY
2.5"	64	6.0	2 5/8"
2.8"	71	7.8	4 3/8"
3.0"	76	9.0	4 3/8"
3.3"	81	10.9	4 3/8"
3.5"	89	12.1	4 3/8"
3.8"	96	14.0	4 3/8"
4.0"	102	15.3	4 3/8"
4.3"	108	17.2	4 3/8"
4.5"	114	18.5	4 3/8"
4.8"	120	20.4	4 3/8"
5.0"	127	21.7	4 3/8"
5.3"	133	23.7	4 3/8"
5.5"	140	25.0	4 3/8"
5.8"	146	26.9	4 3/8"
6.0"	152	28.1	4 3/8"

\*Long Term Thermal Resistance Foam Core Values are based on ASTM C1289-06 and CAN/ULC S770 which provides for a 15-year time weighted average. All PIMA members have adopted this advanced standard for R-value measurement as of 1/1/03.

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

## 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 spacers 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

## INSTALLATION GUIDELINES

- 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.
- Minimum 3" Cool-Vent required for single layer steel deck applications.
- It is preferable to install Cool-Vent parallel to the eaves whenever possible.
- The polyiso panel may be trimmed back from the rake edge to accommodate rake nailers.
- The use of #15 and #30 lb roofing felt is not recommended 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.**

## FASTENING GUIDELINES

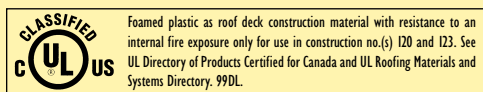
- Hunter Panels requires the use of the Hunter Panel SIP/SD Panel Fastener for steel deck applications and the SIP/WD for wood deck applications. See Installation Guide for recommended fastening patterns.
- Fasten Cool-Vent through the designated wood spacers as described in the Cool-Vent Application Guide.

## 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. Call Hunter Panels for more specific details, or refer to PIMA Technical Bulletin No. 109: *Storage Handling Recommendations for Polyiso Roof Insulation.*

## 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 is located on [www.polyiso.org](http://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. This is especially important during the construction phase where excessive moisture drive is present. Hunter Panels recommends that a dew point calculation be performed. This calculation is based on the building's interior relative humidity, interior temperature conditions and outside temperature fluctuations. Excessive moisture migration will potentially damage the system and cause unwanted condensation.



## COOL-VENT CODES AND COMPLIANCES

### FEDERAL SPECIFICATION

- National Building Code (1998) Section 2603 Building Officials and Code Administration International, Inc.

### UNDERWRITERS LABORATORIES, INC.

- Insulated metal deck assemblies - UL 1256 (nos. 120, 123)
- TGDY. R20624 Shingle Deck Accessory; Cool-Vent roof insulation is classified for use with any Class A, B, or C asphalt glass mat or asphalt organic shingles, metal or tile roof coverings

### NEW FLORIDA BUILDING CODE: FL 5968 (OLD #1296)

MIAMI-DADE COUNTY, FLORIDA NOA NO: 04-1018.01, EXPIRATION: 01-14-10

## TYPICAL PHYSICAL PROPERTY DATA CHART POLYISO FOAM CORE ONLY

PROPERTY	TEST METHOD	VALUE
Compressive Strength	ASTM D 1621 ASTM 1289-06	20 psi minimum (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 <sup>2</sup> )))
Water Absorption	ASTM C 209	< 1% volume
Flame Spread (foam core)	ASTM E 84	< 50
Smoke Developed	ASTM E 84	< 135
Service Temperature		-100° to 250° F (-73°C to 122°C)

### FEDERAL SPECIFICATIONS

- ASTM C1289-06, Type II, Class 1, Grade 2 (20 psi) or Grade 3 (25 psi).

### FACTORY MUTUAL RESEARCH

- FM4450, FM4470 (foam core only)

### UNDERWRITERS LABORATORIES, INC.

- Hourly Rated P series roof assemblies (UL 263)
- H-Shield classified by ULC

## THE USE OF SYNTHETIC UNDERLAYMENTS

The use of synthetic underlayments is becoming the industry norm for steep slope application. Hunter Panels strongly suggests the use of a synthetic underlayment under asphalt shingles unless specified differently by the shingle manufacturer. Synthetic reinforced polypropylene provides excellent water resistance and will not absorb water. The use of #15 and #30 pound roofing felt is not recommended when using Hunter Panels Cool-Vent product.

# H U N T E R

Energy Smart Polyiso

## 888-746-1114

15 FRANKLIN STREET, PORTLAND, ME 04101 Æ FAX: 877-775-1769

### MANUFACTURING FACILITIES:

KINGSTON, NY  
CHICAGO, IL  
LAKE CITY, FL

TERRELL, TX  
TOOELE, UT  
SMITHFIELD, PA