

COOL-VENT II

VENTILATED NAILBASE INSULATION PANEL

NE[®]XGEN
C H E M I S T R Y

PRODUCT DESCRIPTION

Cool-Vent II is a venting composite insulation board. It is constructed with a top layer of either OSB or Plywood, middle layer of wood spacers and a bottom layer of H-Shield-NB – a nailbase roof insulation panel consisting of polyisocyanurate foam insulation bonded in the manufacturing process to OSB. Cool-Vent II is ideal for slate and tile construction when 3/4" or greater plywood is required. Cool-Vent II 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 II'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 superior cross ventilation.

Cool-Vent II Features:

- Manufactured with NexGen Chemistry™ - Zero ODP, CFC Free, and EPA Compliant.
- 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 to ridge distance is over 28 feet)
- Exceeds requirements of ARMA Tech Bulletin 211-RR-24 regarding minimum depth of air space

APPLICATIONS

Cool-Vent II is custom built to incorporate the individual specifications of the building designer or owner. Cool-Vent II is for slopes that are 3:12 or greater (for lower slope considerations see H-Shield NB). Applicable construction types include:

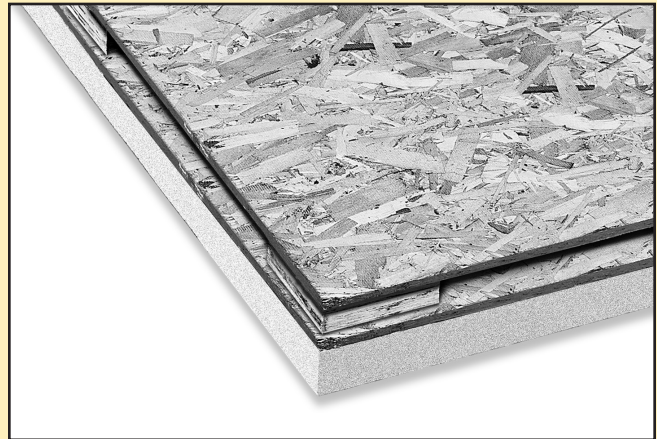
- Non-insulated Cathedral and Vaulted Ceilings
- Exposed ceiling designs beneath steel, wood, tongue & groove deck types in commercial and residential constructions
- Log Home applications
- Post & Beam constructions

ACCEPTABLE ROOF COVERINGS:

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

COOL-VENT II PANEL CHARACTERISTICS

- 48" x 96" panels (1220 mm x 2440 mm)
- ASTM C1289-06, Type II Grade 2 (20 psi minimum)
- Available with FSC Certified OSB or plywood upon request
- Multiple Substrate Types Available:
 - OSB:** - 7/16" or 5/8"
 - Plywood:** - 5/8" or 3/4" CDX - fire-treated



COOL-VENT II THERMAL VALUES

THICKNESS INCHES	MM	SYSTEM R VALUE*	FLUTE SPANABILITY
3.00"	76	6.6	4 3/8"
3.50"	89	9.6	4 3/8"
4.00"	102	12.7	4 3/8"
4.50"	114	15.9	4 3/8"
5.00"	127	17.1	4 3/8"
5.50"	140	22.3	4 3/8"
6.00"	152	25.6	4 3/8"

* Long Term Thermal Resistance Foam Core Values are based on ASTM C1289-06 and CAN/ULC S770 and ASTM C1303 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.

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 II 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

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INSTALLATION GUIDELINES

- Install Cool-Vent II only over fully supported structural decking.
- Cool-Vent II must be applied perpendicular to the flutes in steel deck applications.
- Minimum 3.5" Cool-Vent II required for single layer steel deck applications.
- It is preferable to install Cool-Vent II parallel to the eaves whenever possible.
- The use of #15 and #30 lb roofing felt is not recommended when using Hunter Panels Cool-Vent product.
- Install Cool-Vent II on slopes 3:12 or greater.

NOTE: When installing Cool-Vent II over an acoustic 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 II 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 CONSIDERATIONS

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 (located on www.pima.org) of the United States. 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 II 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 II 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: 09-0915.15,

EXPIRATION: 01-14-2015

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 ²)))
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)

OTHER PRODUCTS BY HUNTER:

- **H-Shield** FLAT POLYISO
- **H-Shield-NB** POLYISO BONDED TO ORIENTED STRAND BOARD
- **H-Shield-WF** POLYISO BONDED TO WOOD FIBERBOARD
- **H-Shield-F** POLYISO BONDED TO FOIL
- **H-Shield-CG** POLYISO BONDED TO COATED GLASS FACER
- **H-Shield-AGF** POLYISO BONDED TO AGF FACER
- **H-Shield-DD** POLYISO BONDED TO DENSDECK
- **H-Shield-DDP** POLYISO BONDED TO PRIMED DENSDECK
- **H-Shield-DWD** POLYISO BONDED TO COATED GLASS FACER FOR DIRECT TO WOOD DECK APPLICATIONS
- **Tapered H-Shield** TAPERED POLYISO
- **Tapered H-Shield-WF** TAPERED POLYISO BONDED TO WOOD FIBERBOARD
- **Tapered H-Shield-CG** TAPERED POLYISO BONDED TO COATED GLASS FACER
- **Cool-Vent** VENTILATED NAILBASE INSULATION PANE

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