

VPG-NB

Flat Polyiso Insulation Manufactured Online to Oriented Strand Board



PRODUCT OVERVIEW & FEATURES

VPG-NB is a rigid roof insulation composite panel composed of a closed cell polyisocyanurate foam core manufactured on-line to a fiber reinforced facer on one side and either 7/16" or 5/8" oriented strand board (OSB) on the other. CI-NB can also be manufactured off-line using a FM approved adhesive.

- Manufactured with NexGen chemistry: Contains no CFCs, HCFCs, is Zero ODP, EPA Compliant, and has virtually no GWP
- A superior combination of high insulating properties and a nailable surface
- Suitable for new construction and re-roofing on both commercial and residential projects
- Incorporates APA-TECO Rated Exposure 1 OSB
- The edges of the wood panels are rabbeted to allow for expansion and contraction of the wood, the foam edges shall be installed tightly to achieve thermal integrity across the entire roof deck – Also available as a non-rabbeted panel upon special request only
- VPG-NB is also available bonded to plywood in an off-line process
- Hail Rating: SH-1
- Available size is 47.5" x 95.5" when rabbeted on-line in thicknesses of 1.5" (38 mm) to 4.0" (102 mm)
- Available in 4' x 8' when non-rabbeted in thicknesses of 1.5" (38 mm) to 4.0" (102mm)
- Available in two compressive strengths per ASTM C 1289 Type V, Grade 2 (20 psi) or Grade 3 (25 psi)
- Available with FSC® Certified OSB or plywood (special order)
- When FSC wood is specified, CI-NB is manufactured with VPG-CG
- Multiple Substrate Types Available:
OSB: 7/16" or 5/8"
Plywood: 5/8" or 3/4"
CDX ; Fire-Treated

APPLICATION

Shingles, Tiles, Slate, Metal and Membrane Roofing

VPG-NB is installed, wood side up, over metal, wood or structural roof decks. Panel fasteners are required to secure the VPG-NB to the roof deck. Wood blocking, if necessary, should be equal in thickness to the VPG-NB and should be installed along the eaves and rake edges of the roof. The roofing system is then installed according to the manufacturer's recommendations.

VPG-NB may be adhered to a properly prepared cementitious deck (with a full mopping of Type III or Type IV asphalt or a low rise adhesive) only when manufactured online. May be adhered to a prepared concrete deck or subsequent layers of insulation with a full mopping of hot steep asphalt, insulation adhesive or cold-applied mastic. Butt edges and stagger joints of adjacent panels. Install the roof covering according to the manufacturer's specifications of adjacent panels. Install the roof covering according to the manufacturer's specifications. All VPG-NB manufactured off-line must be mechanically attached.

The Use of Synthetic Underlayments

The use of synthetic underlayments is becoming an industry norm (for steep slope applications). Viking Products Group 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. VPG 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

VPG requires the use of panel fasteners for steel deck applications and the SIP WD for wood deck applications. See Fastening Pattern Guide for recommended fastening



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patterns. When VPG-NB with a foam thickness greater than 3.5" is specified, VPG recommends the installation of a two layer system with staggered joints.

CODES AND COMPLIANCES

- ASTM C 1289 Type V, 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

UL Classifications

- 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
- Approved for Class 1 insulated steel deck constructions
- Refer to FM Approval's RoofNav for details on specific systems

LEED POTENTIAL CREDITS

Energy and Atmosphere

- Optimize Energy Performance
- Measurement & Verification

Materials & Resources

- Material Reuse
- Construction Waste Management
- Recycled Content
- Local and Regional Materials
- Certified Wood

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. VPG 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. The technical

specifications in this literature are intended to be used as general guidelines only and are subject to change without notice.

DATA & TESTING

VPG-CG

Per ASTM C 1289 - Polyiso foam core only

Compressive Strength (ASTM D 1621)	20 psi* (138 kPa, 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** (CGSB 37-GP-56M)	<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 Viking Products Group Technical Department.

THERMAL VALUES*

Thickness (mm)	LTR R Value*	Flute Spanability
1.50 (38)	6.3**	4 3/8"
2.00 (51)	9.2	4 3/8"
2.50 (64)	12.0	4 3/8"
3.00 (76)	15.0	4 3/8"
3.50 (89)	18.0	4 3/8"
4.00 (102)	21.1	4 3/8"

*NEW Long Term Thermal Resistance Values are based on ASTM C 1289, effective 1/1/2014, which provides updated 15-year time weighted averages.

**Updated 7/16 When VPG-Flat foam thickness is greater than 3.5", Viking Products Group recommends the installation of a two-layer system with staggered joints.



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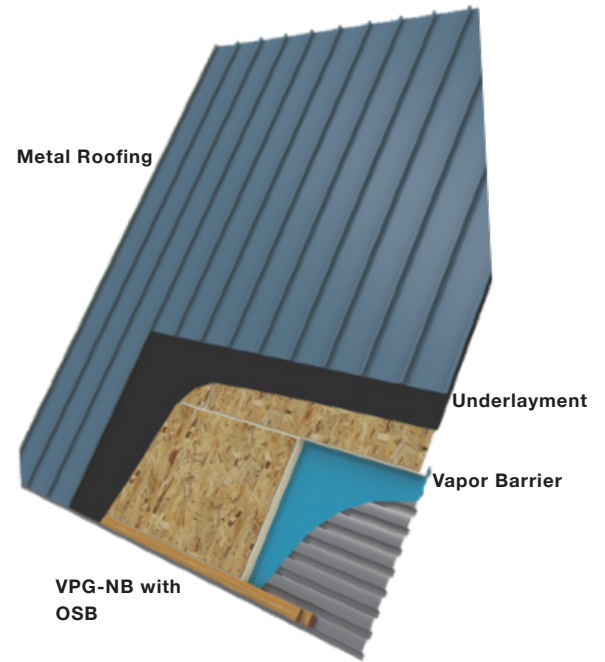
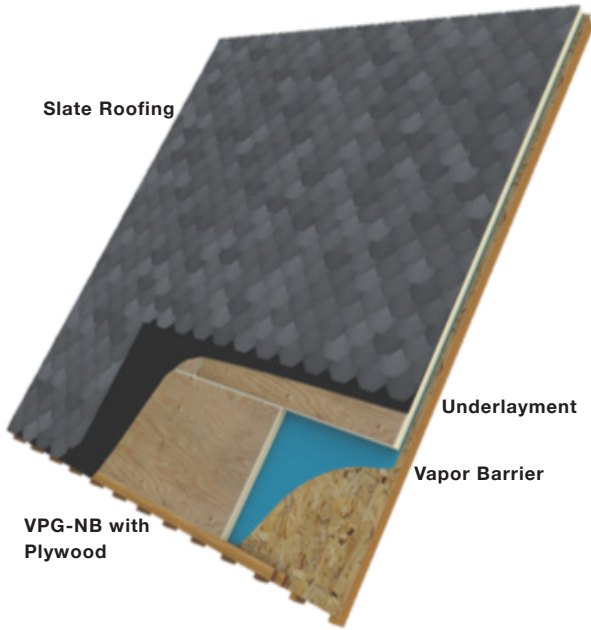
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