



# STRUCTODEK® HD

## HIGH DENSITY FIBERBOARD ROOF INSULATION AND COVER BOARD

### DESCRIPTION

**STRUCTODEK HD (high density)** is not only an integral roofing system component; it also makes roofing easier with physical properties that generate structural rigidity and dimensional stability.

The wood fiber composition of **STRUCTODEK HD** possesses natural bonding qualities, resulting in superior adhesion capabilities. Adhesive tightly grasps the fibers of **STRUCTODEK HD** without causing excess absorption, providing a solid and secure roof system which bonds very well with many asphalt, coal tar, and cold-process adhesive products. The lightweight nature of **STRUCTODEK HD** is better than heavier alternatives and will keep the roof load below the specified maximum weight.

### USES

**STRUCTODEK HD** can be used as an insulation board, cover board, or re-roof/recover board. **STRUCTODEK HD** is a high-density roofing board and is designed for low-slope applications and systems.

### COMPLIANCES

- ASTM C 208, Type II, Grade 1 and Grade 2 Roof Insulation Board for Built-up and Single-Ply Roofing Systems
- ASTM C 209, Test Methods
- FM Approved as a component in Class 1 roof assemblies per FM Standards 4450/4470
- UL Classified to US Standard ANSI/UL 790 as a component in Class A rated roof systems, reference TGFU.R20803
- ULC Classified to Canadian Standard CAN/ULC-S107 as a component in Class A rated roof systems, reference TGFU7.R20803
- CAN/ULC-S706-09, Type II, Class 1 and Class 2 Roofboards for Built-up and Single-Ply Roofing Systems
- Canadian Construction Materials Centre, Listing CCMC 13186-L
- Miami-Dade County, Florida, NOA No. 18-0523.03, Expiration Date: 09/18/23
- Florida Building Commission Product Approval FL# 13792

### FEATURES/BENEFITS

- Natural (uncoated), coated one side, or integral coated six sides
- Proprietary coating is compatible with all single-ply membranes (TPO, PVC, EPDM) and traditional multiply membrane assemblies
- Contributes to thermal insulation, 1.3 R-Value for ½" thick STRUCTODEK HD
- UL and ULC Classified in Class A rated roof systems. See complete marking on product
- FM Approved in Class 1 roof assemblies. See [www.roofnav.com](http://www.roofnav.com) for FM Approvals

- High compressive strength, 45 psi @ 20% deformation and 22 psi @ 10% deformation
- Superior adhesion without excess absorption
- Easily handles hot asphalt
- Cuts with a standard utility knife
- Lightweight and easy to install, without the irritating fiberglass dust of glass-mat faced gypsum board
- Flame Spread Index 70, Class B, Smoke Developed Index 50, per ASTM E84

### PRECAUTIONS

- Do not expose to open flame or excessive heat. May smolder if ignited. If ignited, extinguish completely.
- Do not apply flame directly to STRUCTODEK HD when installing a modified bitumen system.
- STRUCTODEK HD must not be used in close proximity to chimneys, heater units, fireplaces, steam pipes, or other surfaces which could provide long-term exposure to excessive heat (above 212° F) without adequate thermal protection. Consult appropriate heating appliance manufacturer's instructions before installation.
- Do not use as an underlayment for shingles.
- Stagger joints among insulation layers and within layers.
- Fastening patterns and densities will vary based upon specific membrane manufacturer assemblies. Refer to membrane manufacturer for fastening requirements.
- Moisture conditions may affect the performance of the product and the installation of the roof system.
- STRUCTODEK HD must be kept dry at all times; in storage and during application. Store at a location where humidity and temperature duplicates those during installation.
- Deck and substrates must be dry at start of application and maintained in a dry condition throughout installation.
- Avoid application during rain, heavy fog, dew and any other conditions that may deposit moisture on surfaces.
- Conduct a moisture survey on recovers and tear-offs to ensure the roof deck is dry.
- Before applying STRUCTODEK HD, existing roof surfaces must be cleared of all gravel, dirt and debris which could hold moisture or present surface irregularities. All wet areas in old roof should be cut out and replaced.
- Apply only as much STRUCTODEK HD in one day as can be covered by completed roofing system that day.
- Refer to the appropriate membrane manufacturer specifications; and appropriate NRCA Manual, Guidelines and Technical Bulletins for accepted installation practices and applications.
- BLUE RIDGE FIBERBOARD will not be responsible for deficiencies in design, construction, or workmanship, and for product moisture exposure before, during or after installation; including construction generated moisture.

Thickness (nominal)	1/2"	1"	1-1/2"	2"
R-Value	1.3	2.5	3.8	5.0
Board Size	4' x 4', 4' x 8'	2' x 4', 4' x 4', 4' x 8'	2' x 4', 4' x 4'	2' x 4', 4' x 4'
Weight Per Square Foot (lb/ft <sup>2</sup> )	0.700	1.375	2.100	2.750
Flute Span	1 5/8" (40mm)	2 5/8" (67mm)	4 3/8" (111mm)	4 3/8" (111mm)
Boards/Unit	4' x 4' = 90 4' x 8' = 90	2' x 4' = 90 4' x 4' = 45 4' x 8' = 45	2' x 4' = 60 4' x 4' = 30	2' x 4' = 46 4' x 4' = 23
Squares/Unit	4' x 4' = 14.40 4' x 8' = 28.80	2' x 4' = 7.20 4' x 4' = 7.20 4' x 8' = 14.40	2' x 4' = 4.80 4' x 4' = 4.80	2' x 4' = 3.68 4' x 4' = 3.68

Physical Property	1/2" Values	1" Values
Thickness	+ or - 10%	+ or - 7%
Transverse Strength, min, lbf	12 - 14	24
Tensile Strength Parallel, min, lbf/in <sup>2</sup>	150	150
Tensile Strength Perpendicular, min, lbf/ft <sup>2</sup>	600	600
Water Absorption by volume, max, %	7	7
Moisture Content by weight, max, %	10	10
Linear Expansion 50-90% RH, max, %	0.5	0.5
Modulus of Rupture, min, lbf/in <sup>2</sup>	275	140
Deflection at Specified Min. Load, max, in.	0.75	0.42
Density, nominal, lb/ft <sup>3</sup>	16	16
Flute Span, max width, in.	1-5/8	2-5/8
Compressive Strength, min, lbf/in <sup>2</sup>	15	15
R- Value, ft <sup>2</sup> ·h·°F/BTU in	1.3	2.5

MASTERFORMAT NUMBER AND TITLE  
07 22 16 - Roof Board Insulation

LEED INFORMATION  
May help contribute to:  
MR Credit: Construction Waste Management  
MR Credit: Recycled Content  
MR Credit: Regional Materials  
MR Credit: Rapidly Renewable Materials  
IEQ Credit: Low-Emitting Materials

**Limited Warranty:** BLUE RIDGE FIBERBOARD, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. Read complete warranty. Copy furnished upon request.

**Disclaimer:** The information contained herein is included for illustrative purpose only, and to the best of our knowledge, is accurate and reliable. BLUE RIDE FIBERBOARD, INC. cannot however under any circumstance make any guarantee of results or assume any obligation or liability in connection with the use of this information. As BLUE RIDGE FIBERBOARD, INC. has no control over the use to which others may put its product, it is recommended that the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine the suitability of products for specific application and assume all responsibilities in connection therewith.