

GUIDE SPECIFICATION

PREMIUM INSULATING SHEATHING

Regular Fiberboard Sheathing

Date: March 29, 2021

SECTION 06 16 13 – Insulating Sheathing

Specifier Notes: This guide specification is written according to the Construction Specifications Institute (CSI) MasterFormat 2020. The section must be carefully reviewed and edited by the architect or engineer to meet the requirements of the project. Coordinate this section with other specification sections and the drawings.

Specifier Notes: PREMIUM INSULATING SHEATHING is an exterior fiberboard wall sheathing panel comprised of interlaced wood fibers and vegetable starch binder; eliminating the need for formaldehyde based adhesives, thus providing a remarkably green product. It is easy to install and cuts with a knife, saving time and money. Premium Insulating Sheathing saves energy costs at a low cost per R-value. Premium Insulating Sheathing provides an R-value of 1.3 per ½" (13 mm), which is more than double the R-value of OSB and gypsum sheathing. Premium Insulating Sheathing's high vapor permeance allows the wall to "breathe", permitting moisture to escape and reducing the threat of mold growth.

PREMIUM INSULATING SHEATHING can be used in those exterior wall sheathing applications where code provides other means of structural bracing, as noted in IRC Table 602.10.4 Bracing Methods, and IBC Table 2308.6.3(1). Code compliant wall bracing solutions may require review by a design professional, and require local building official approval. Refer to local building codes and building official for specific requirements.

PREMIUM INSULATING SHEATHING is offered in coated one side (C1S) and integral coated six sides (C6S) configurations. Both coating configurations are manufactured to conform with the same physical property specification requirements of ASTM C208, Type IV, Grade 1 Regular Wall Sheathing

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Furnishings and installation of regular fiberboard sheathing as an exterior wall sheathing.

1.2 REFERENCES

- A. ASTM C208 - Standard Specifications for Cellulosic Fiber Insulating Board. Type IV – Wall Sheathing, Grade 1 - Regular
- B. ASTM C209 - Standard Test Methods for Cellulosic Fiber Insulating Board.
- C. ASTM C846 – Application of Cellulosic Fiber Insulating Board for Wall Sheathing.
- D. ASTM D1554 – Definitions of terms Relating to Wood Based Fiber and Particle Panel Materials.
- E. ANSI/AHA – A194.1 Cellulosic Fiberboard.
- F. U. S. Department of Commerce: PS57-73, Cellulosic Fiber Insulating Board.

1.3 SUBMITTALS

- A. Comply with Section 01 33 00 - Submittal Procedures.
- B. Submit manufacturer's product data and installation instructions.
- C.

1. All materials shall be manufactured by BLUE RIDGE FIBERBOARD® unless specified otherwise.
 2. All materials shall be installed in accordance with printed installation instructions by BLUE RIDGE FIBERBOARD.
- D. Quality Assurance/Control Submittals.
1. Refer to manufacturer's safety data sheet (SDS), technical data sheet, and product brochure.

1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications.
1. Over 50 years experience in producing fiber boards of the type specified herein.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's original packages or bundles bearing the brand name of the product.
1. Inspect the materials upon delivery to assure that specified products have been received.
 2. Report damaged material immediately to the delivering carrier and note such damage on the carrier's freight bill of lading.
- B. Store materials on a level surface under cover.
- C. Keep dry, protect from weather and damage from construction operations and other causes.
- D. Store at a location where humidity and temperature duplicates those during installation and occupancy in order to stabilize the material.

1.6 PRECAUTIONS

- A. BLUE RIDGE FIBERBOARD products 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 [maximum 212° F (100° C)] without adequate thermal protection.
- B. Consult the appropriate heating appliance manufacturer's instructions before installation.

PART 2 PRODUCTS

1.1 MANUFACTURER

- A. Acceptable Manufacturer: BLUE RIDGE FIBERBOARD, INC., 250 Celotex Dr., Danville, VA 24541. www.blueridgefiberboard.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01 25 00 – Substitution Procedures.
- C. Provide all regular wall sheathing boards from a single manufacturer.

1.2 MATERIALS

Specifier Notes: ASTM C208 conformance testing performed by PRI Construction Materials Technologies.

- A. Fiberboard wall sheathing panels: Premium Sheathing physical properties as follows:
1. Panel size: 4'0" (1,200 mm) x 8'0" (2,400 mm) or 9'0" (2,700 mm) x ½" (13 mm).
 1. Transverse Strength, lbf (N): 14 lbf (62.3 N) min.

2. Modulus of Rupture, psi (kPa): 275 psi (1,896 kPa) min.
3. Deflection at Specified Minimum Load, in. (mm): 0.75 in. (19 mm).
4. Thermal Conductivity, Btu·in./h·ft²·°F (W/m·K): 0.40 Btu·in./h·ft²·°F (0.058 W/m·K) max.
- 5.

6. Tensile Strength Perpendicular to Surface, lbf/ft² (kPa): 600 lbf/ft² (28.7 kPa) min.
7. Tensile Strength Parallel to Surface, lbf/in² (kPa): 150 lbf/in² (1,034 kPa) min.
8. Water Absorption by Volume, %: 7% max.
9. Vapor Permeance, grains/h·ft²·in. Hg (mg/s·m²·kPa): 5 grains/h·ft²·in. Hg (0.287 mg/s·m²·kPa)
10. Moisture Content by Weight, %: 10% max.
11. Linear Expansion, %: 0.5 % max.
12. Typical Physical Properties
Weight per Square Foot: 0.70 lbs (0.317 kg)
Vapor Permeance: 23 grains/h·ft²·in. Hg (1.320 mg/s·m²·kPa)
R-value: 1.3 at ½" (13 mm) thickness
Density: 14 to 20 lb/ft³ (225 - 320 kg/m³)

1.3 ACCESSORIES

- A. Nails: 1-1/2" long x 0.120" galvanized roofing nails, 7/16" head diameter.
- B. Staples: 1-1/4" leg, 16 gauge, corrosion resistant staples with 7/16" or 1" crown.

PART 3 EXECUTION

1.1 EXAMINATION

- A. Examine substrates upon which work will be installed.
- B. Verify framing member spacing complies with the manufacturer's requirements.
- C. Verify environmental conditions are, and will continue to be, maintained in accordance with manufacturer's recommendations.
- D. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates panels or conditions.
- E. Starting work by installer is acceptance of substrate panels and environmental conditions.

1.2 PREPARATION

- A. Follow manufacturer's instructions. Store in a well-ventilated area. Material must be kept dry before installation.
 1. Regular fiberboard sheathing panels must be installed in a clean, dry condition.
 2. Ensure panels are thoroughly dry prior to closing in the structure.
 3. Provide proper ventilation and use of respiratory protection as required by the manufacturer.
 4. Avoid dust inhalation.
 5. Use caution when creating large amounts of dust because of potential explosion hazard.
 6. Refer to manufacturer's SDS data for these and other precautions.

1.3 INSTALLATION

- A. Contact BLUE RIDGE FIBERBOARD for full product installation guides and precautions including fastening pattern and fastening density.
- B. PREMIUM INSULATING SHEATHING requires wood stud wall framing at 16" o.c. maximum. Panel edges are required to align with framing members. Install panels vertically.
- C. See manufacturer's recommendations for required blocking.

- D. Verify appropriate framing section or drawing notes comply.
- E.

- F. Wall system panel application: Install in accordance with ASTM C846 and manufacturer's application instructions.
1. Vertical application with long edges parallel to vertical framing studs is recommended.
 2. Sheathing should extend from sill over top plate.
 3. Add blocking for adequate fastening of all horizontal joints.
 4. Center all joints over framing members with a 1/8" gap between panel edges.
 5. Leave a 1/8" gap at doors, windows and horizontal joints.
 6. Fasten with referenced fasteners spaced a maximum of 6" o.c. around panel perimeter and a maximum of 12" o.c. in the panel field.
 7. Fasteners should be spaced 3/8" from panel edges.
 8. When using staples, apply with the crown parallel to the framing member.
 9. Drive fasteners flush with the sheathing surface, avoiding overdriven fasteners.
 10. A water-resistive barrier (house wrap) is required.
 11. Exterior finish attachment must be fastened through to framing, and not solely into the Premium Insulating Sheathing.

1.4 ADJUSTING AND CLEANING

- A. Follow manufacturer's instructions for replacement of damaged panels.
- B. During the course of the Work and on completion of the Work, remove excess materials, equipment and debris; and dispose of properly away from the premises.
- C. Leave Work in clean condition in accordance with Section 01 50 00 – Temporary Facilities and Controls.

1.5 PROTECTION

- A. After application of PREMIUM INSULATING SHEATHING, it is recommended that house wrap is applied immediately, and the exterior finish applied within 30 days.
- B. If applied PREMIUM INSULATING SHEATHING should get wet, wait until it is completely dry before application of exterior finish.
- C. Each panel is surface printed with the following: Warning: Combustible, may smolder or burn if ignited.

END OF SECTION