## DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Housing - Federal Housing Commissioner

Series and Series Number:

MATERIALS RELEASE NO: 942j

(Supersedes issue dated January 18, 2017)

TO: DIRECTORS, SINGLE FAMILY HOCS DIRECTORS, MULTIFAMILY HUBS

ISSUE DATE

August 8, 2022

REVIEW DATE

August 8, 2025

SUBJECT: 1. Product Thermo-Ply® Blue Structural Sheathing

2. Name and address of Manufacturer

Ox Engineered Products, LLC 700 Centerville Road

Constantine, MI 49042

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development (HUD) and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement or approval by HUD of the described product, and any statement or representation, however made, indicating such approval or endorsement by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

<u>USE</u>: Wall sheathing.

### **DESCRIPTION:**

Thermo-Ply® Blue Structural Sheathing is composed of pressure-laminated piles consisting of high strength cellulosic fibers placed in proprietary orientation(s) to provide a given set of strength properties. These fibers are specially treated to be water resistant and are bonded with a proprietary water-resistive adhesive. A protective polymer layer is applied on both sides of the panel, and foil facings may ne additionally applied on one or both faces.

Thermo-Ply® Blue Structural Sheathing panels have a nominal thickness of 0.135" and nominal weight of 0.504 lbs. per square foot.

# **REQUIREMENTS:**

The laminated paperboard shall be in compliance with the requirements below.

### APPLICABLE CODES AND STANDARDS:

## Codes

IBC—12, 15, 18: International Building Code® IRC—12, 15, 18: International Residential Code®

IECC—12, 15, 18: International Energy Conservation Code® FBC-B—17, 20: Florida Building Code – Building (FL 16391) FBC-R—17, 20: Florida Building Code – Residential (FL 16391)

CBC—16, 19: California Building Standards Code

CRC-16, 19: California Residential Code

# Standards and Referenced Documents

ANSI/AWC SDPWS: Special Design Provisions for Wind and Seismic ASCE/SEI 7: Minimum Design Loads and Associated Criteria for

**Buildings and Other Structures** 

Standard Test Methods for Cyclic (Reversed) Load ASTM E2126:

> Test for Shear Resistance of Vertical Elements of the Lateral Force Resisting Systems for Buildings

Standard Test Method for Air Permeance of **ASTM E2178:** 

**Building Materials** 

Standard Test Method for Structural Performance of ASTM E330:

Exterior Windows, Doors, Skylights and Curtain

Walls by Uniform Static Air Pressure Difference

**ASTM E331:** Standard Test Method for Water Penetration of

> Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference

Standard Practice for Static Load Test for Shear ASTM E564

Resistance of Framed Walls for Buildings

Standard Test Methods of Conducting Strength ASTM E72:

Tests of Panels for Building Construction

Standard Test Method for Surface Burning ASTM E84:

Characteristics of Building Materials

UL 723: Test for Surface Burning Characteristics of Building

Materials

## Notes:

For complete specifications and installation requirements, refer to DrJ TER #1004-02.

# INSTALLATION:

- 1. Panels shall be installed according to the manufacturer's instructions with 16 ga., 15/16" (nominal 1.0 inch) minimum crown staples with 1-1/4" legs, or 0.120"diameter, 1-1/4" long roofing nails.
- 2. Panels shall be installed with vertical or horizontal with fasteners spaced 3" o.c. at the edges and 3" o.c. at the intermediate supports when used as a structural panel.
- 3. All nails and staples shall be driven flush with the surface. Nail heads and staple crowns shall not cut the surface of the panel.
- 4. Joints shall be butted or lapped, and shall occur over studs, plates, or solid blocking. Cut or trim with saw, knife, or router.
- 5. Thermo-Ply® Blue Structural Sheathing panels shall not be used as a nail base. Nail siding to the studs, furring strips or other nailable surface.
- 6. Thermo-Ply® Blue Structural Sheathing panels (all facers) may be used for stucco applications with the addition of secondary water-resistive barrier with a performance at least equivalent to grade "D" building paper. Self-adhered flashing at least 25 mils thick and compatible to WRB system to be used for penetrations and non-vertical surfaces.
- 7. Panels may be used in fire rated exterior wall assemblies provided that they comply with the fire requirements of the local building code. Refer- to DrJ TER #1510-04 for approved fire-rated assemblies.
- 8. Minimum fastening for panels in nonstructural applications, approved fasteners placed 6" o.c. at the panel edges and 12" o.c. at the intermediate supports.

# **CERTIFICATION AND LABELING:**

Ox Engineered Products, LLC certifies that Thermo-Ply® Blue Structural Sheathing covered by this release and produced in conformance to this Materials Release (MR), is in compliance with a validation program at PFS, Inc. in accordance with the Code of Federal Regulations, 24 CFR 200.935. PFS shall inspect the manufacturer's facility every year at the plant to assure that the

initially accepted quality control procedures are being followed. Sufficient samples of this product shall be selected and tested each year to validate the manufacturer's conformance to the requirements of this MR. Each piece of sheathing certified as conforming to this MR shall be labeled with the following information:

- 1. The PFS validation mark
- 2. The manufacturer's name
- 3. The manufacturer's conformance to this MR
- 4. Span rating

### MANUFACTURING PLANT:

The product covered under this MR will be produced at the following plant:

Ox Engineered Products, LLC 700 Centreville Road Constantine, MI 49042 Turner Slaughter, Quality Assurance Manager 269-435-2425

### WARRANTY:

Ox Engineered Products, LLC warrants Thermo-Ply® Blue Structural Sheathing panels against any defect due to faulty material and workmanship in the manufacturing process for a period of 30 years from the date of installation.

The liability of Ox Engineered Products, LLC on this warranty shall be limited to replacement of any defective panel and the cost of installation; or at the option of Ox Engineered Products, LLC payment in lieu thereof.

The warranty applies to any material failure due to manufacture only and does not cover nor will the manufacturer be liable for any defect or damage due to misuse, improper installation, or damages resulting from fire, lightning or other unforeseen cause beyond the manufacturer's control. There are no warranties, which extend beyond the description of Thermo-Ply® Blue Structural Sheathing contained in this document. In no event shall Ox Engineered Products, LLC be liable for any incidental, consequential or proximate damage.

The manufacturer's warranty does not relieve the builder, in any way, of responsibility under the terms of the Builder's Warranty required by the National Housing Act or under any provisions applicable to any other housing program. A copy of the manufacturer's warranty shall be furnished by the builder to the owner.

## MANUFACTURER'S RESPONSIBILITIES:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

- 1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
- 2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
- 3. When requested, provide the Office of Manufactured Housing Programs, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
- 4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

### **EVALUATION:**

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to:

U. S. Department of Housing and Urban Development Office of Manufactured Housing Programs 451 7<sup>th</sup> Street, SW, Room 9170 Washington, DC 20410-8000

Appropriate User Fee(s) for the TSP program can be submitted through the Pay.gov website at <a href="https://pay.gov/public/form/start/73881741">https://pay.gov/public/form/start/73881741</a>

The holder of this MR may apply for revision at any time prior to the Review Date. Minor revision may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

# **CANCELLATION:**

Failure to apply for a renewal or revision shall constitute a basis for cancellation of this MR. HUD will notify the manufacturer that the MR may be canceled when:

- 1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
- 2. the manufacturer has changed its organizational form without notifying HUD, or
- 3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.