Listing and Technical Evaluation Report™

A Duly Authenticated Report from an Approved Agency

Report No: 2304-118

Issue Date: April 3, 2024

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Performance Characteristics of Millboard® Composite Deck Boards

Trade Secret Report Holder:

Millboard® Company, Ltd

Phone: 561-346-3068 Website: www.millboard.com Email: inquiries@millboard.com

CSI Designations:

DIVISION: 06 00 00 - WOOD, PLASTICS AND COMPOSITES

Section: 06 73 00 - Composite Decking

Section: 06 73 13 - Composite Structural Decking

1 Innovative Product Evaluated[1]

1.1 Millboard Composite Deck Board products:

1.1.1 Weathered Oak

1.1.2 Enhanced Grain

1.1.3 Lasta-Grip®

1.1.4 Modello Linear

1.1.5 Modello Contour

1.1.6 Bullnose Board

2 Product Description and Materials

2.1 The innovative products evaluated in this report are shown in **Figure 1** through **Figure 6**, and are specified in **Table 1**.

Figure 1. Weathered Oak Decking

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Figure 2. Enhanced Grain Decking

Figure 3. Lasta-Grip Decking

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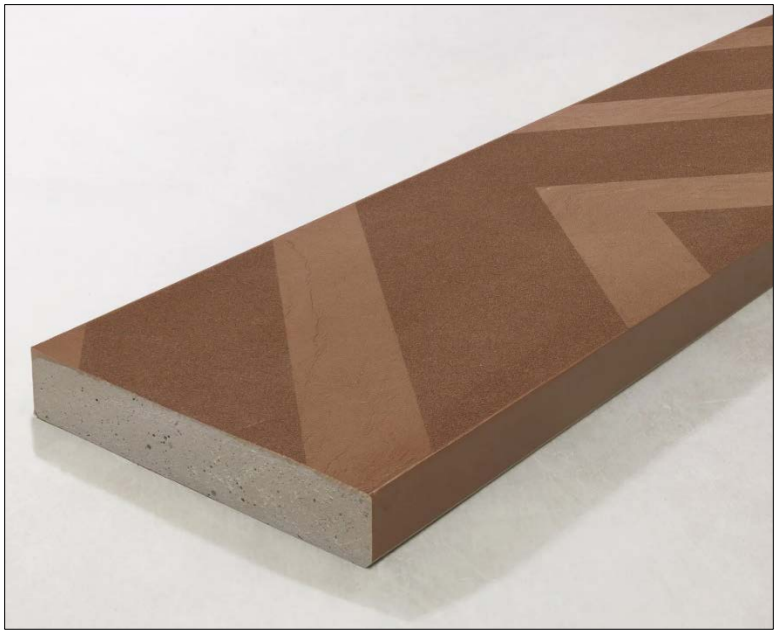

Figure 4. Modello Linear

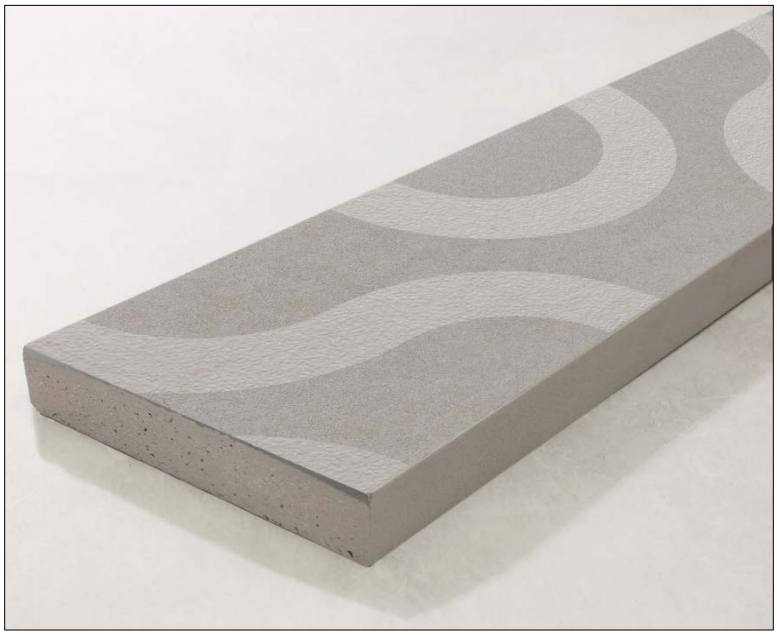

Figure 5. Modello Contour

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Figure 6. Bullnose Board

Table 1. Product Information

Product	Description	Material	Coating	Standard Length	Nominal Width	Nominal Thickness	Colors[1]
Weathered Oak	Products are designed for exterior balconies, porches, decks, stair treads, and other exterior walking surfaces	Polyurethane resin and mineral composite core reinforced with glass-fibers. It contains no wood fiber	A proprietary rubberized coating, Lastane®, is melded to the core and coated with a 2K UV stabilizer	141 3/4" (3,600 mm)	7 7/8" (200 mm)	1 1/4" (32 mm)	Driftwood, Embered, and Vintage
Enhanced Grain					6 7/8" (176 mm) and 5" (126 mm)		Antique Oak, Ashwood, Brushed Basalt, Burnt Cedar, Coppered Oak, Ebony Grey, Golden Oak, Jarrah, Limed Oak, and Smoked Oak
Lasta-Grip					7 7/8" (200 mm)		Coppered Oak, Golden Oak
Modello Linear					7 3/4" (196 mm)		Antique Oak, Ashwood, Brushed Basalt, Burnt Cedar, Coppered Oak, Ebony Grey, Golden Oak, Jarrah, Limed Oak, and Smoked Oak
Modello Contour					7 3/4" (196 mm)		
Bullnose Board[2]					5 7/8" (150 mm)		Antique Oak, Ashwood, Brushed Basalt, Burnt Cedar/Embered, Coppered Oak, Ebony Grey, Golden Oak, Jarrah, Limed Oak, Smoked Oak/Driftwood, and Vintage

SI: 1 in = 25.4 mm

1. See Figure 7 through Figure 11 for additional details.
2. The Bullnose Board profile is specifically designed for use as edging and shall be fully supported by a perimeter joist along the entire length. The available colors for both Weathered Oak and Enhanced Grain are also available for the Bullnose Board profile, however, the profile finish matches the finish of the Enhanced Grain boards.

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Figure 7. Weathered Oak - Available Colors and Surface Pattern

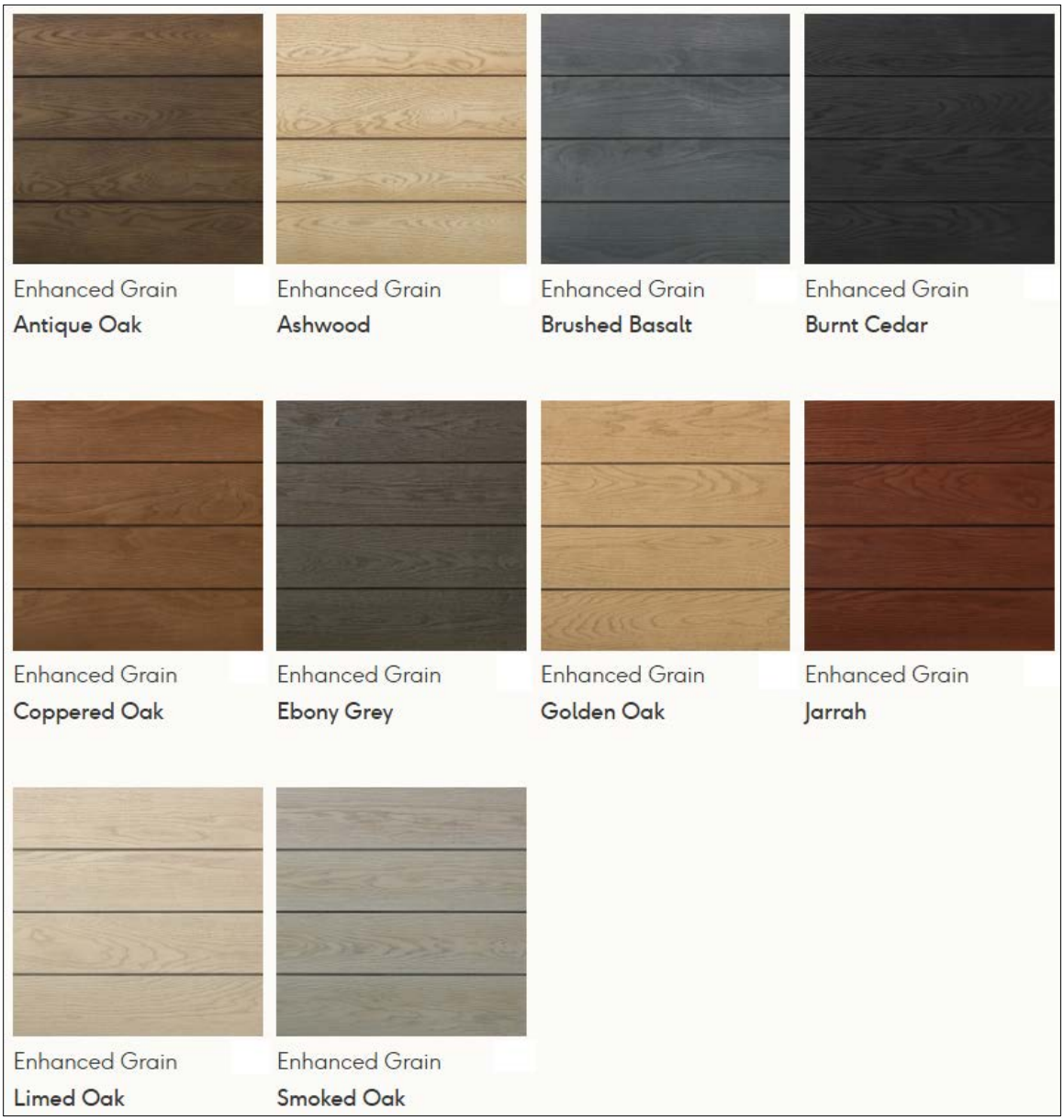

Figure 8. Enhanced Grain - Available Colors and Surface Pattern

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Figure 9. Lasta-Grip - Available Colors and Surface Pattern

Figure 10. Modello Linear
Available Colors and Surface Patterns

Figure 11. Modello Contour
Available Colors and Surface Patterns

2.2 As needed, review material properties for design in **Section 6** and the regulatory evaluation in **Section 8**.

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3 Definitions[2]

3.1 New Materials[3] are defined as building materials, equipment, appliances, systems, or methods of construction, not provided for by prescriptive and/or legislatively adopted regulations, known as alternative materials.[4] The design strength and permissible stresses shall be established by tests[5] and/or engineering analysis.[6]

3.2 Duly authenticated reports[7] and research reports[8] are test reports and related engineering evaluations that are written by an approved agency[9] and/or an approved source.[10]

3.2.1 This report utilizes intellectual property and/or trade secrets to create public domain material properties for commercial end-use.

3.2.1.1 This report protects confidential Intellectual Property and trade secrets under the regulation, 18.US.Code.90, also known as Defend Trade Secrets Act of 2016 (DTSA).[11]

3.3 An approved agency is *"approved"* when it is ANAB ISO/IEC 17065 accredited. DrJ Engineering, LLC (DrJ) is accredited and listed in the ANAB directory.

3.4 An approved source is *"approved"* when a professional engineer (i.e., Registered Design Professional, hereinafter RDP) is properly licensed to transact engineering commerce. The regulatory authority governing approved sources is the state legislature via its professional engineering regulations.[12]

3.5 Testing and/or inspections conducted for this duly authenticated report were performed by an ISO/IEC 17025 accredited testing laboratory, an ISO/IEC 17020 accredited inspection body, and/or a licensed RDP.

3.5.1 The Center for Building Innovation (CBI) is ANAB[13] ISO/IEC 17025 and ISO/IEC 17020 accredited.

3.6 The regulatory authority shall enforce[14] the specific provisions of each legislatively adopted regulation. If there is a non-conformance, the specific regulatory section and language of the non-conformance shall be provided in writing[15] stating the nonconformance and the path to its cure.

3.7 The regulatory authority shall accept duly authenticated reports from an approved agency and/or an approved source with respect to the quality and manner of use of new materials or assemblies as provided for in regulations regarding the use of alternative materials, designs, or methods of construction.[16]

3.8 ANAB is an International Accreditation Forum (IAF) Multilateral Recognition Arrangement (MLA) signatory. Therefore, recognition of certificates and validation statements issued by conformity assessment bodies accredited by all other signatories of the IAF MLA with the appropriate scope shall be approved.[17] Thus, all ANAB ISO/IEC 17065 duly authenticated reports are approval equivalent,[18] and can be used in any country that is an MLA signatory found at this link: https://iaf.nu/en/recognised-abs/

3.9 Approval equity is a fundamental commercial and legal principle.[19]

4 Applicable Local, State, and Federal Approvals; Standards; Regulations[20]

4.1 *Local, State, and Federal*

4.1.1 Approved in all local jurisdictions pursuant to ISO/IEC 17065 duly authenticated report use, which includes, but is not limited to, the following featured local jurisdictions: Austin, Baltimore, Broward County, Chicago, Clark County, Dade County, Dallas, Detroit, Denver, DuPage County, Fort Worth, Houston, Kansas City, King County, Knoxville, Las Vegas, Los Angeles City, Los Angeles County, Miami, Nashville, New York City, Omaha, Philadelphia, Phoenix, Portland, San Antonio, San Diego, San Jose, San Francisco, Seattle, Sioux Falls, South Holland, St. Louis County, Texas Department of Insurance, and Wichita.[21]

4.1.2 Approved in all state jurisdictions pursuant to ISO/IEC 17065 duly authenticated report use, which includes, but is not limited to, the following featured states: California, Florida, New Jersey, Oregon, New York, Texas, Washington, and Wisconsin.[22]

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4.1.3 Approved by the Code of Federal Regulations Manufactured Home Construction: Pursuant to Title 24, Subtitle B, Chapter XX, Part 3282.14[23] and Part 3280[24] pursuant to the use of ISO/IEC 17065 duly authenticated reports.

4.1.4 Approved means complying with the requirements of local, state, or federal legislation.

4.2 *Regulations*

4.2.1 *IBC – 18, 21, 24: International Building Code®*

4.2.2 *IRC – 18, 21, 24: International Residential Code®*

4.2.3 *CBC – 22, 25: California Building Code[25] (Title 24, Part 2)*

4.2.4 *CRC – 22, 25: California Residential Code[25] (Title 24, Part 2.5)*

4.2.5 *CWUIC – 25: California Wildland-Urban Interface Code (Title 24, Part 7)*

4.2.6 *California Title 24, Part 12: State Fire Marshall Code, Standard 12-7A-4A*

4.3 *Standards*

4.3.1 *ASTM D2394: Standard Test Methods for Simulated Service Testing of Wood and Wood-Based Finish Flooring*

4.3.2 *ASTM D4442: Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials*

4.3.3 *ASTM D6109: Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastic Lumber and Related Products*

4.3.4 *ASTM D7032: Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite and Plastic Lumber Deck Boards, Stair Treads, Guards, and Handrails*

4.3.5 *ASTM E84: Standard Test Method for Surface Burning Characteristics of Building Materials*

4.3.6 *ASTM G154: Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Materials*

4.3.7 *BS 7976-2:2002+A1 Pendulum Testers – Method of Operation*

4.3.8 *BS EN 317 Particleboards and Fibreboards - Determination of Swelling in Thickness after Immersion in Water*

4.3.9 *BS EN 322 Wood-Based Panels – Determination of Moisture Content*

5 Listed[26]

5.1 Equipment, materials, products, or services included in a List published by a nationally recognized testing laboratory (e.g., CBI), an approved agency (e.g., CBI and DrJ), and/or an approved source (e.g., DrJ), or other organization(s) concerned with product evaluation (e.g., DrJ), that maintains periodic inspection (e.g., CBI) of production of listed equipment or materials, and whose listing states either that the equipment or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner.

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6 Tabulated Properties Generated from Nationally Recognized Standards

6.1 *Structural Applications*

6.1.1 Millboard Composite Deck Board products were evaluated in accordance with ASTM D7032 as specified in IBC Section 2612.2 and IRC Section R507.2.2.

6.1.2 Span ratings for Millboard Composite Deck Board products are presented in **Table 2**.

6.1.2.1 The effects of temperature (-20° F to 125° F), moisture, UV exposure, and freeze-thaw cycles on Millboard Composite Deck Board products were evaluated.

6.1.2.2 Allowable loads in **Table 2** have been adjusted for the lower of temperature or moisture effect, UV exposure, and freeze-thaw effects, in accordance with ASTM D7032, Section 5.1.1.

Table 2. Span Ratings for Millboard Composite Decking Products[1,2]

Product	Maximum Deck Board Span (in)	Allowable Load Capacity (psf)
Weathered Oak	16	100
Enhanced Grain	16	100
Lasta-Grip	16	100
Modello Linear	16	100
Modello Contour	16	100

SI 1 in = 25.4 mm, 1-psf = 47.9 Pa

1. Span ratings considered adjustments for temperature and moisture per ASTM D7032, Section 4.5, UV exposure per ASTM D7032, Section 4.6, and freeze-thaw per ASTM D7032, Section 4.7.
2. Allowable load capacity determined in accordance with ASTM D7032, Section 5.3 and the above adjustments.

6.1.3 *Creep Recovery:*

6.1.3.1 Millboard Composite Deck Board products were evaluated for creep-recovery in accordance with ASTM D7032, Section 5.4.

6.1.4 *Stair Tread Performance:*

6.1.4.1 Minimum of a two-span configuration shall be installed when deck boards are used for stair tread applications. Stringers shall be reinforced with blocking.

6.1.4.2 Millboard Composite Deck Board products were evaluated for their performance as stair treads in accordance with ASTM D7032, Section 5.3.2.

6.1.4.2.1 At a maximum span of 8" o.c., Millboard Composite Deck Board products (Weathered Oak, Enhanced Grain, Lasta-Grip, and Modello) met the adjusted load and deflection requirements specified in ASTM D7032, Section 5.3.2.

6.1.4.2.2 The Bullnose Board profile shall be fully supported by a perimeter joist along the entire length. See **Figure 12** for details.

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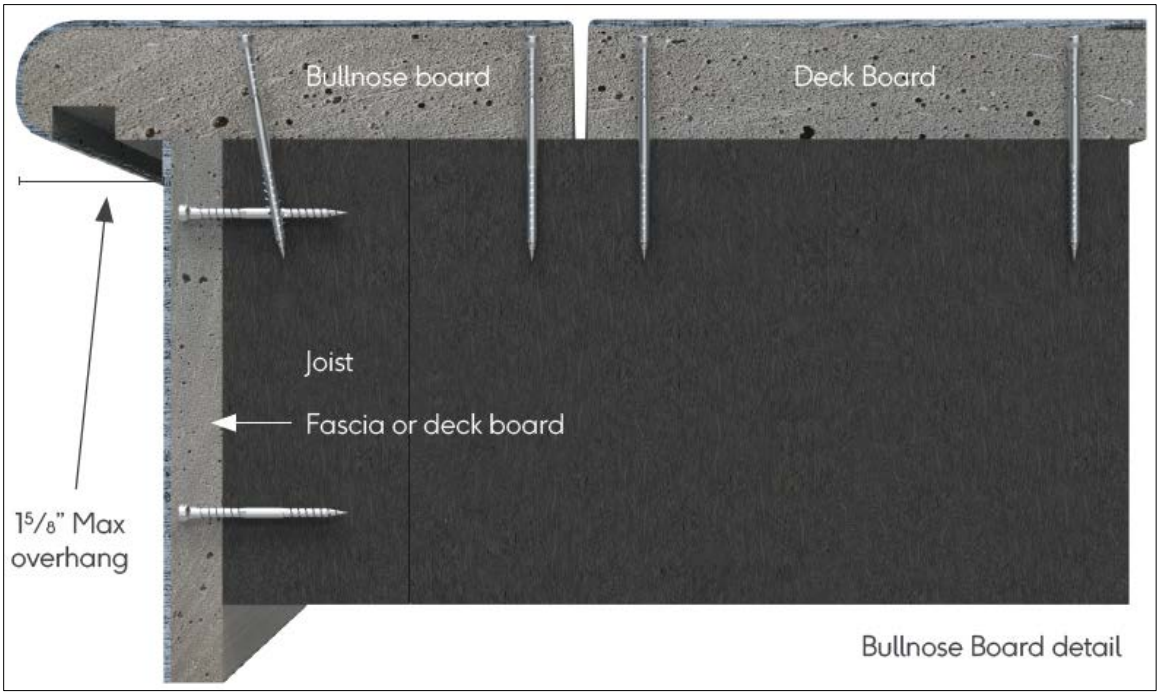

Figure 12. Bullnose Board Installation Details

6.2 *Mechanical Fasteners*

6.2.1 Head pull-through resistance of Millboard Composite Deck Board products installed with Durafix® #9 x 2³/₈" (4.5 x 60 mm) screws were evaluated. See **Figure 13** for an illustration of the fastener, and **Figure 14** for installation details.

6.2.2 Allowable pull-through values are presented in **Table 3**.

Table 3. Fastener Head Pull Through

Product	Allowable Screw Head Pull Through Load (lbf)
Weathered Oak	50
Enhanced Grain	45
Lasta-Grip	50
Modello Linear	45
Modello Contour	45
SI: 1-lbf = 4.45 N	

Figure 13. Durafix #9 x 2³/₈" (4.5 x 60 mm)

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6.3 *Surface-Burning Characteristics*

6.3.1 Millboard Composite Deck Board products were evaluated to assess flame spread as specified in IBC Section 2612.3 and IRC Section R507.2.2.2.

6.3.2 The flame spread index is presented in **Table 4**.

Table 4. Flame Spread Index[1]

Product	Flame Spread Index (FSI)
Weathered Oak	< 200
Enhanced Grain	
Lasta-Grip	
Modello Linear	
Modello Contour	

1. Tested in accordance with ASTM E84.

6.4 *Protection Against Decay*

6.4.1 Millboard Composite Deck Board products contain no wood or cellulosic materials and meet the requirements of IBC Section 2612.4 and IRC Section R507.2.2.3, where protection against biodegradation and decay is required.

6.5 *Protection Against Termites*

6.5.1 Millboard Composite Deck Board products contain no wood or cellulosic materials and meet the requirements of IBC Section 2612.4 and IRC Section R507.2.2.4, where protection against termite attack is required.

6.6 *Moisture Content/Swelling*

6.6.1 Millboard Composite Deck Board products were evaluated to assess moisture content and swelling caused by immersion in water. See **Table 5** for moisture content and swelling values.

Table 5. Moisture Content and Swelling

Product	Average Moisture Content[1] (%)	Average Swelling (%)
Weathered Oak	0.6	0.1
Enhanced Grain		
Lasta-Grip		
Modello Linear		
Modello Contour		

1. Tested in accordance with BS EN 317 with an immersion time of 24 hours.

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6.7 *Slip Resistance*

6.7.1 Slip resistance of Millboard Composite Deck Board products was evaluated in accordance with BS 7976-2.

6.7.1.1 Per UK Slip Resistance Group Guidelines Issue 5:2016, a Pendulum Test Value (PTV) greater than or equal to 36, denotes *"low slip potential"* (i.e., most footwear will provide adequate grip). Results are shown in **Table 6**.

Table 6. Slip Resistance – PTV Values[1,2,4]

Product	Slider 55 (Barefoot)[3]						Slider 96 (Shod-Foot)					
	Direction of Test						Direction of Test					
	A		B		C		A		B		C	
	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet
Weathered Oak	88	57	93	77	83	64	54	41	79	56	58	44
Enhanced Grain	91	53	92	78	89	65	49	42	59	37	60	36
Lasta-Grip	87	83	97	89	91	88	58	45	75	63	58	43
Modello Linear[3]	91	51	92	48	71	62	56	43	57	42	55	43
Modello Contour[3]	89	50	84	49	88	49	57	45	58	47	57	42

1. Directions of tests are as follows:
   a. Parallel to the direction of manufacture (along the length)
   b. Perpendicular to the direction of manufacture (along the width)
   c. 45° to the direction of manufacture (45° to width and length)
2. Slip potential only considered *"normal walking"* on a level surface in the conditions shown (dry and wet). Other potential risk factors were not considered.
3. Modello Linear and Modello Contour were tested using Slider 57 instead of Slider 55
4. Rubber slider (#55, #57, or #96) is used on the Pendulum Floor Slip Testing Equipment to imitate the dynamic movement of a heel in motion.

6.8 *Wildland-Urban Interface (WUI)*

6.8.1 Millboard Composite Deck Board products were evaluated for WUI regions under 2022 CBC Section 709A.3, 2022 CRC Section R337, and 2025 CWUIC Section 504.7.3.2.

6.8.1.1 Performance of Millboard Composite Deck Board products, when exposed to direct flames and brands, met the following conditions of acceptance in accordance with 2022 SFM Standard 12-7A-4A, and 2022 CRC Section 12-7A-4, and 2022 CRC Section 12-7A-4.8.

Table 7. WUI Fire Performance according to SFM 12-7A-4

Product	Part A, SFM 12-7A-4A	Part B, SFM 12-7A-4.8
	Conditions of Acceptance[1]	Conditions of Acceptance[2]
Weathered Oak	Peak Heat Release Rate of ≤ 25 kW/ft²	Absence of sustained flaming or glowing combustion of any kind at the conclusion of the 40-minute observation period. Absence of falling particles that are still burning when reaching the burner or floor.
Enhanced Grain		
Lasta-Grip		
Modello Linear		
Modello Contour		

1. 2022 CRC Section 12-7A-4A.7.5
2. 2022 CRC Section 12-7A-4.8.5

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6.9 Alternative techniques shall be permitted in accordance with accepted engineering practice and experience. These provisions for the use of alternative materials, designs, and methods of construction are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed herein. This includes, but is not limited to, the following areas of engineering: mechanics of materials, structures, building science, and fire science.

7 Certified Performance[27]

7.1 All construction methods shall conform to accepted engineering practices to ensure durable, livable, and safe construction and shall demonstrate acceptable workmanship reflecting journeyman quality of work of the various trades.[28]

7.2 The strength and rigidity of the component parts and/or the integrated structure shall be determined by engineering analysis or by suitable load tests to simulate the actual loads and conditions of application that occur.[29]

8 Regulatory Evaluation and Accepted Engineering Practice

8.1 Millboard Composite Deck Board products comply with the following legislatively adopted regulations and/or accepted engineering practice for the following reasons:

8.1.1 Millboard Composite Deck Board products were evaluated in accordance with ASTM D7032 as specified in IBC Section 2612.2 and IRC Section R507.2.2 for use as exterior deck boards and stair treads.

8.1.2 Millboard Composite Deck Board products were evaluated in accordance with 2022 CRC Section 12-7A-4A and 2022 CRC Section 12-7A-4.8, as specified in 2022 CBC Section 709A.3, and assessed in accordance with 2022 CRC Section 12-7A-4A.7.5 and 2022 CRC Section 12-7A-4.8.5 for use in WUI regions.

8.1.3 Millboard Composite Deck Board products were evaluated in accordance with 2022 SFM Standard 12-7A-4A, as specified in 2025 CWUIC Section 504.7.3.2, and assessed for use in California WUI regions.

8.2 Any building code, regulation and/or accepted engineering evaluations (e.g., research reports, duly authenticated reports, etc.) that are conducted for this Listing were performed by DrJ, which is an ISO/IEC 17065 accredited certification body and a professional engineering company operated by RDP or approved sources. DrJ is qualified[30] to practice product and regulatory compliance services within its scope of accreditation and engineering expertise,[31] respectively.

8.3 Engineering evaluations are conducted with DrJ's ANAB accredited ICS code scope of expertise, which is also its areas of professional engineering competence.

9 Installation

9.1 Installation shall comply with the approved construction documents, the manufacturer installation instructions, this report, and the applicable building code.

9.2 In the event of a conflict between the manufacturer installation instructions and this report, contact the manufacturer for counsel on the proper installation method.

9.3 *General*

9.3.1 Installation instructions[32] detailing the process can be found on the Millboard Company website.

9.3.2 Boards may be trimmed to size using standard cutting tools that would be used on wooden boards (e.g., handsaw, miter saw, jigsaw, etc.).

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9.4 *Installation Procedure*

9.4.1 Millboard Composite Deck Board products are installed perpendicular to the supporting joists using Durafix #9 x 2 3/8" (4.5 x 60 mm) fasteners.

9.4.1.1 Installation of fasteners does not require pilot holes.

9.4.1.2 Fasteners shall be driven 3/8" below the surface of the decking using the supplied driver bit and a standard power drill driver.

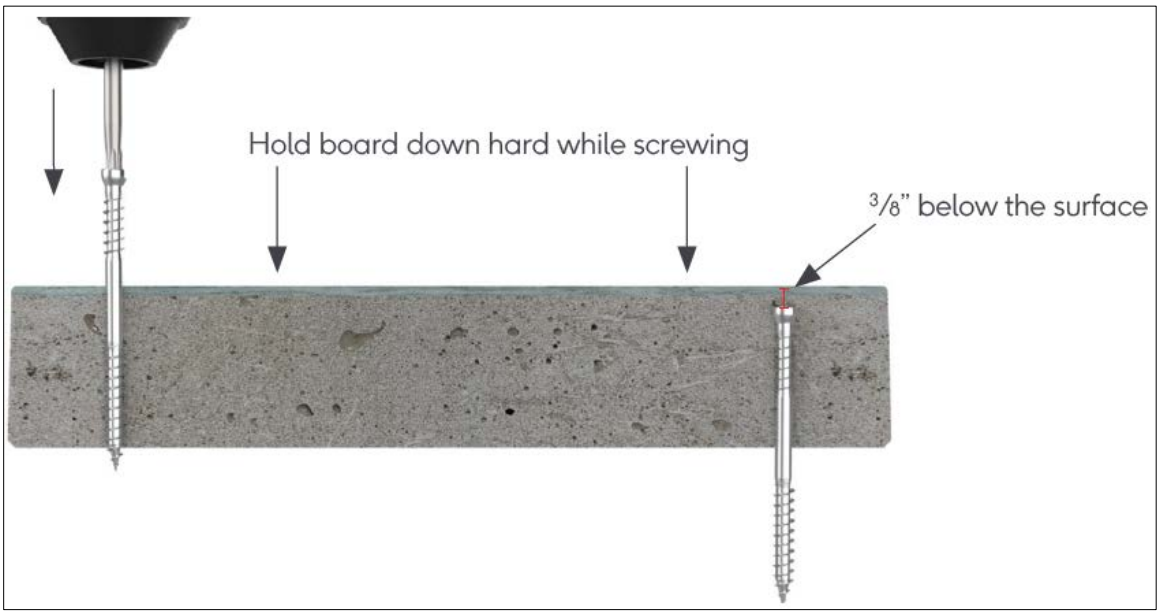

Figure 14. Installation Details of Millboard Composite Deck Boards

9.4.2 Two fasteners shall be used per board at the spot where the board meets a joist, and three shall be used at the end of the boards. The fasteners shall be spaced at least 3/4" from the edges and ends of the boards.

9.4.3 There shall be at least a 3/16" space between the sides of boards and a 1/16" space between the ends of the boards.

9.4.4 When boards are at 90° to the joist, a joist spacing of 16" on center maximum shall be used for normal residential use and spacing of 12" on center maximum shall be used for commercial use.

9.4.5 A joist spacing of 15.5" (400 mm) on center for normal residential use and 11.5" (300 mm) on center for commercial use reduces waste.

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10 Substantiating Data

10.1 Testing has been performed under the supervision of a professional engineer and/or under the requirements of ISO/IEC 17025 as follows:

10.1.1 Flexural testing in accordance with ASTM D6109 per ASTM D7032 with additional conditioning requirements specified in ASTM D7032, Section 4.5 through Section 4.7.

10.1.1.1 Conditioning requirements to assess the effects of the following on the flexural properties of Millboard Composite Deck Board products:

10.1.1.1.1 Temperature

10.1.1.1.2 Moisture

10.1.1.1.3 UV exposure

10.1.1.1.4 Freeze/thaw cycles

10.1.2 Creep-recovery in accordance with ASTM D7032

10.1.3 Fastener head pull-through in accordance with ASTM D1761

10.1.4 Stair tread performance in accordance with ASTM D7032

10.1.5 Surface burning characteristics in accordance with ASTM E84

10.1.6 Slip resistance in accordance with BS 7976-2

10.1.7 Moisture content in accordance with BS EN 322

10.1.8 Swelling due to water submersion in accordance with BS EN 317

10.1.9 Fire performance in accordance with 2022 California Referenced Standards Code Title 24, Part 12: SFM 12-7A-4A, and SFM-12-7A-4.8, Part B.

10.2 Information contained herein may include the result of testing and/or data analysis by sources that are approved agencies, approved sources, and/or an RDP. Accuracy of external test data and resulting analysis is relied upon.

10.3 Where applicable, testing and/or engineering analysis are based upon provisions that have been codified into law through state or local adoption of regulations and standards. The developers of these regulations and standards are responsible for the reliability of published content. DrJ's engineering practice may use a regulation-adopted provision as the control. A regulation-endorsed control versus a simulation of the conditions of application to occur establishes a new material as being equivalent to the regulatory provision in terms of quality, strength, effectiveness, fire resistance, durability, and safety.

10.4 The accuracy of the provisions provided herein may be reliant upon the published properties of raw materials, which are defined by the grade mark, grade stamp, mill certificate, or duly authenticated reports from approved agencies and/or approved sources provided by the supplier. These are presumed to be minimum properties and relied upon to be accurate. The reliability of DrJ's engineering practice, as contained in this duly authenticated report, may be dependent upon published design properties by others.

10.5 *Testing and Engineering Analysis*

10.5.1 The strength, rigidity, and/or general performance of component parts and/or the integrated structure are determined by suitable tests that simulate the actual conditions of application that occur and/or by accepted engineering practice and experience.[33]

10.6 Where additional condition of use and/or regulatory compliance information is required, please search for Millboard Composite Deck Board products on the DrJ Certification website.

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11 Findings

11.1 As outlined in **Section 6**, Millboard Composite Deck Board products have performance characteristics that were tested and/or meet applicable regulations. In addition, they are suitable for use pursuant to its specified purpose.

11.2 When used and installed in accordance with this duly authenticated report and the manufacturer installation instructions, Millboard Composite Deck Board products shall be approved for the following applications:

11.2.1 Use as decking material for balconies, porches, decks, stair treads, and other exterior walking surfaces in accordance with the IBC and IRC.

11.2.2 Use as decking material for balconies, porches, decks, stair treads, and other exterior walking surfaces for WUI regions under the CBC.

11.3 Unless exempt by state statute, when Millboard Composite Deck Board products are to be used as a structural and/or building envelope component in the design of a specific building, the design shall be performed by an RDP.

11.4 Any application specific issues not addressed herein can be engineered by an RDP. Assistance with engineering is available from Millboard Company, Ltd.

11.5 IBC Section 104.2.3[34] (IRC Section R104.2.2[35] and IFC Section 104.2.3[36] are similar) in pertinent part state:

> 104.2.3 Alternative Materials, Design and Methods of Construction and Equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative is not specifically prohibited by this code and has been approved.

11.6 **Approved:**[37] Building regulations require that the building official shall accept duly authenticated reports.[38]

11.6.1 An approved agency is *"approved"* when it is ANAB ISO/IEC 17065 accredited.

11.6.2 An approved source is *"approved"* when an RDP is properly licensed to transact engineering commerce.

11.6.3 Federal law, Title 18 US Code Section 242, requires that, where the alternative product, material, service, design, assembly, and/or method of construction is not approved, the building official shall respond in writing, stating the reasons why the alternative was not approved. Denial without written reason deprives a protected right to free and fair competition in the marketplace.

11.7 DrJ is a licensed engineering company, employs licensed RDPs and is an ANAB Accredited Product Certification Body – Accreditation #1131.

11.8 Through the IAF Multilateral Arrangement (MLA), this duly authenticated report can be used to obtain product approval in any jurisdiction or country because all ANAB ISO/IEC 17065 duly authenticated reports are equivalent.[39]

12 Conditions of Use

12.1 As defined in **Section 6**, where material and/or engineering mechanics properties are created for load resisting design purposes, the resistance to the applied load shall not exceed the ability of the defined properties to resist those loads using the principles of accepted engineering practice.

12.2 As listed herein, Millboard Composite Deck Board products shall be limited to use as decking for balconies, porches, decks, stair treads, and other walking surfaces in accordance with the IBC provisions for Type V-B construction and the IRC.

12.3 Millboard Bullnose Board profile shall be fully supported by a perimeter joist for all situations.

12.3.1 All mitered corners shall be glued together with polyurethane wood adhesive.

12.3.2 Fastener spacing shall be every 12" into the perimeter joist, and every 12" or 16" into the deck joist.

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12.4 Millboard Composite Deck Board products shall bear a label on their packaging that indicates compliance with ASTM D7032, except slip resistance, which was evaluated in accordance with BS 7976, and includes the allowable load and maximum allowable span in accordance with ASTM 7032 and IBC Section 2612.2.

12.5 Use of Millboard Composite Deck Board products as a component of a fire-resistance rated assembly is outside the scope of this report.

12.6 Compatibility of the specified fasteners in **Section 6.2** and **Section 9.4.1**, with other hardware components used in the construction of the deck and the supporting structure, are outside the scope of this report.

12.7 When required by adopted legislation and enforced by the building official, also known as the Authority Having Jurisdiction (AHJ) in which the project is to be constructed:

12.7.1 Any calculations incorporated into the construction documents shall conform to accepted engineering practice and, when prepared by an approved source, shall be approved when signed and sealed.

12.7.2 This report and the installation instructions shall be submitted at the time of permit application.

12.7.3 At a minimum, these innovative products shall be installed per **Section 9**.

12.7.4 The review of this report by the AHJ shall comply with IBC Section 104.2.3.2 and IBC Section 105.3.1.

12.7.5 These innovative products have an internal quality control program and a third party quality assurance program in accordance with IBC Section 104.7.2, IBC Section 110.4, IBC Section 1703, IRC Section R104.7.2, and IRC Section R109.2.

12.7.6 The application of this innovative products in the context of this report is dependent upon the accuracy of the construction documents, implementation of installation instructions, inspection as required by IBC Section 110.3, IRC Section R109.2, and any other regulatory requirements that may apply.

12.8 The approval of this report by the AHJ shall comply with IBC Section 1707.1, where legislation states in part, *"the building official shall make, or cause to be made, the necessary tests and investigations; or the building official shall accept duly authenticated reports from approved agencies in respect to the quality and manner of use of new materials or assemblies as provided for in Section 104.2.3"*, all of IBC Section 104, and IBC Section 105.3.

12.9 Design loads shall be determined in accordance with the regulations adopted by the jurisdiction in which the project is to be constructed and/or by the building designer (i.e., owner or RDP).

12.10 The actual design, suitability, and use of this report for any particular building, is the responsibility of the owner or the authorized agent of the owner.

13 Identification

13.1 Millboard Composite Deck Board products (Weathered Oak, Enhanced Grain, Lasta-Grip, Modello Linear, Modello Contour, and Bullnose Board), as listed in **Section 1.1**, are identified by a label on the board or packaging material bearing the manufacturer name, product name, this report number, and other information to confirm code compliance.

13.2 Additional technical information can be found at www.millboard.com/en-us/product-brochures.

14 Review Schedule

14.1 This report is subject to periodic review and revision. For the latest version, visit www.drjcertification.org.

14.2 For information on the status of this report, please contact DrJ Certification.

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Issue Date: September 3, 2025
Supplement Revision Date: March 23, 2026
Subject to Renewal: April 1, 2027

CBC and CRC Supplement to Report Number 2304-118

REPORT HOLDER: Millboard® Company, Ltd

1 Evaluation Subject

1.1 Millboard Composite Deck Board products:

1.1.1 Weathered Oak

1.1.2 Enhanced Grain

1.1.3 Lasta-Grip

1.1.4 Modello Linear

1.1.5 Modello Contour

1.1.6 Bullnose Board

2 Purpose and Scope

2.1 Purpose

2.1.1 The purpose of this Report Supplement is to show Millboard Composite Deck Board products, recognized in Report Number 2304-118 have also been evaluated for compliance with the codes listed below.

2.2 *Applicable Code Editions*

2.2.1 *CBC — 22, 25: California Building Code (Title 24, Part 2)*

2.2.2 *CRC — 22, 25: California Residential Code (Title 24, Part 2.5)*

2.2.3 *CWUIC – 25: California Wildland-Urban Interface Code (Title 24, Part 7)*

3 Conclusions

3.1 Millboard Composite Deck Board products, described in Report Number 2304-118, comply with the CBC and CRC and are subject to the conditions of use described in this supplement.

3.2 Where there are variations between the IBC and IRC and the CBC and CRC applicable to this report, they are listed here:

3.2.1 CBC Section 104.6 replaces IBC Section 104.4.

3.2.2 CBC Section 104.11 replaces IBC Section 104.2.3 and Section 104.2.3.2.

3.2.3 CBC Section 1707.1 replaces IBC Section 1707.1.

3.2.4 CBC Section 2306.3 replaces IBC Section 2306.3.

3.2.5 CRC Section R104.6 replaces IBC Section 104.4.

3.2.6 CRC Section R104.11 replaces IRC Section R104.2.2.

3.2.7 CRC Section R507.2.2.4 replaces IRC Section R507.2.2.4.

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3.2.8 *2019 and 2022 Code Editions:*

3.2.8.1 Provisions for materials and construction methods for exterior wildfire exposure are located in CBC Chapter 7A and CRC Section R337.

3.2.9 *2025 Code Edition:*

3.2.9.1 These provisions have been relocated to Title 24, Part 7 (CWUIC). Compliance with CWUIC Section 504.7 replaces compliance with CBC Chapter 7A and CRC Section R337 for the 2025 cycle.

4 Conditions of Use

4.1 Millboard Composite Deck Board products, described in Report Number 2304-118, must comply with all of the following conditions:

4.1.1 All applicable sections in Report Number 2304-118.

4.1.2 The design, installation, and inspections are in accordance with additional requirements of CBC and CRC, as applicable.

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Notes

1 For more information, visit drjcertification.org or call us at 608-310-6748.

2 Capitalized terms and responsibilities are defined pursuant to the applicable building code, applicable reference standards, the latest edition of TPI 1, the NDS, AISI S202, US professional engineering law, Canadian building code, Canada professional engineering law, Qualtim External Appendix A: Definitions/Commentary, Qualtim External Appendix B: Project/Deliverables, Qualtim External Appendix C: Intellectual Property and Trade Secrets, definitions created within Design Drawings and/or definitions within Reference Sheets. Beyond this, terms not defined shall have ordinarily accepted meanings as the context implies. Words used in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.

3 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1702

4 Alternative Materials, Design and Methods of Construction and Equipment: The provisions of any regulation code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by a regulation. Please review https://www.justice.gov/atr/mission and https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.2.3

5 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1706.2:~:text=the%20design%20strengths%20and%20permissible%20stresses%20shall%20be%20established%20by%20tests

6 The design strengths and permissible stresses of any structural material shall conform to the specifications and methods of design of accepted engineering practice. https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1706.1:~:text=Conformance%20to%20Standards-,The%20design%20strengths%20and%20permissible%20stresses,-of%20any%20structural

7 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1:~:text=the%20building%20official%20shall%20make%2C%20or%20cause%20to%20be%20made%2C%20the%20necessary%20tests%20and%20investigations%3B%20or%20the%20building%20official%20shall%20accept%20duly%20authenticated%20reports%20from%20approved%20agencies%20in%20respect%20to%20the%20quality%20and%20manner%20of%20use%20of%20new%20materials%20or%20assemblies%20as%20provided%20for%20in%20Section%20104.2.3.

8 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1703.4.2

9 https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved_agency

10 https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved_source

11 https://www.law.cornell.edu/uscode/text/18/1832 (b) Any organization that commits any offense described in subsection (a) shall be fined not more than the greater of $5,000,000 or 3 times the value of the stolen trade secret to the organization, including expenses for research and design and other costs of reproducing the trade secret that the organization has thereby avoided. The federal government and each state have a public records act. To follow DTSA and comply state public records and trade secret legislation requires approval through ANAB ISO/IEC 17065 accredited certification bodies or approved sources. For more information, please review this website: Intellectual Property and Trade Secrets.

12 https://www.nspe.org/resources/issues-and-advocacy/professional-policies-and-position-statements/regulation-professional AND https://apassociation.org/list-of-engineering-boards-in-each-state-archive/

13 https://www.cbitest.com/accreditation/

14 https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.1:~:text=directed%20to%20enforce%20the%20provisions%20of%20this%20code

15 https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.2.3 AND https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#105.3.1

16 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1

17 https://iaf.nu/en/about-iaf-mla/#:~:text=Once%20an%20accreditation%20body%20is%20a%20signatory%20of%20the%20IAF%20MLA%2C%20it%20is%20required%20to%20recognise%20certificates%20and%20validation%20and%20verification%20statements%20issued%20by%20conformity%20assessment%20bodies%20accredited%20by%20all%20other%20signatories%20of%20the%20IAF%20MLA%2C%20with%20the%20appropriate%20scope

18 True for all ANAB accredited product evaluation agencies and all International Trade Agreements.

19 https://www.justice.gov/crt/deprivation-rights-under-color-law AND https://www.justice.gov/atr/mission

20 Unless otherwise noted, the links referenced herein use un-amended versions of the 2024 International Code Council (ICC) 2024 International Code Council (ICC) model codes as foundation references. Mississippi versions of the IBC 2024 and the IRC 2024 are un-amended. This material, product, design, service and/or method of construction also complies with the 2000-2012 versions of the referenced codes and the standards referenced therein. As pertinent to this technical and code compliance evaluation, CBI and/or DrJ staff have reviewed any state or local regulatory amendments to assure this report is in compliance.

21 See Adoptions by Publisher for the latest adoption of a non-amended or amended model code by the local jurisdiction. https://up.codes/codes/general

22 See Adoptions by Publisher for the latest adoption of a non-amended or amended model code by state. https://up.codes/codes/general

23 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3282/subpart-A/section-3282.14

24 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280

25 All references to the CBC and CRC are the same as the 2024 IBC and 2024 IRC unless otherwise noted in the California Supplement at the end of this report.

26 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#p-3280.2(Listed%20or%20certified); https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#listed AND https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#labeled

27 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1703.4

28 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#:~:text=All%20construction%20methods%20shall%20be%20in%20conformance%20with%20accepted%20engineering%20practices%20to%20insure%20durable%2C%20livable%2C%20and%20safe%20housing%20and%20shall%20demonstrate%20acceptable%20workmanship%20reflecting%20journeyman%20quality%20of%20work%20of%20the%20various%20trades

29 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#:~:text=The%20strength%20and%20rigidity%20of%20the%20component%20parts%20and/or%20the%20integrated%20structure%20shall%20be%20determined%20by%20engineering%20analysis%20or%20by%20suitable%20load%20tests%20to%20simulate%20the%20actual%20loads%20and%20conditions%20of%20application%20that%20occur

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[30] Qualification is performed by a legislatively defined Accreditation Body. ANSI National Accreditation Board (ANAB) is the largest independent accreditation body in North America and provides services in more than 75 countries. DrJ is an ANAB accredited product certification body.

[31] https://anabpd.ansi.org/Accreditation/product-certification/AllDirectoryDetails?prgID=1&orgID=2125&statusID=4#:~:text=Bill%20Payment%20Date-,Accredited%20Scopes,-13%20ENVIRONMENT.%20HEALTH

[32] https://www.millboard.com/en-us/wp-content/uploads/sites/5/2026/01/1.Millboard-Decking-Install-Guide_US.pdf

[33] See Code of Federal Regulations (CFR) Title 24 Subtitle B Chapter XX Part 3280 for definition: https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280

[34] 2021 IBC Section 104.11

[35] 2021 IRC Section R104.11

[36] 2018: https://up.codes/viewer/wyoming/ifc-2018/chapter/1/scope-and-administration#104.9 AND 2021: https://up.codes/viewer/wyoming/ibc-2021/chapter/1/scope-and-administration#104.11

[37] Approved is an adjective that modifies the noun after it. For example, Approved Agency means that the Agency is accepted officially as being suitable in a particular situation. This example conforms to IBC/IRC/IFC Section 201.4 (https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#201.4) where the building code authorizes sentences to have an ordinarily accepted meaning such as the context implies.

[38] https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1

[39] Multilateral approval is true for all ANAB accredited product evaluation agencies and all International Trade Agreements.

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