Listing and Technical Evaluation Report™

A Duly Authenticated Report from an Approved Agency

Report No: 2202-02

Issue Date: May 4, 2022

Revision Date: September 5, 2025

Subject to Renewal: July 1, 2026

Rmax® Durasheath® Drainage Performance Under Stucco

Trade Secret Report Holder:

Rmax®

Phone: 972-850-3604 Website: www.rmax.com Email: technical@rmax.com

CSI Designations:

DIVISION: 06 00 00 - WOOD, PLASTICS AND COMPOSITES

Section: 06 16 00 - Sheathing

Section: 06 16 13 - Insulated Sheathing

DIVISION: 07 00 00 - THERMAL AND MOISTURE PROTECTION

Section: 07 21 00 - Thermal Insulation

Section: 07 21 13 - Foam Board Insulation

Section: 07 27 00 - Air Barriers

Section: 07 27 23 - Board Product Air Barriers

DIVISION: 09 00 00 - FINISHES

Section: 09 24 23 - Cement Stucco

1 Innovative Product Evaluated[1]

1.1 Durasheath

2 Product Description and Materials

2.1 The innovative product evaluated in this report is shown in **Figure 1**.

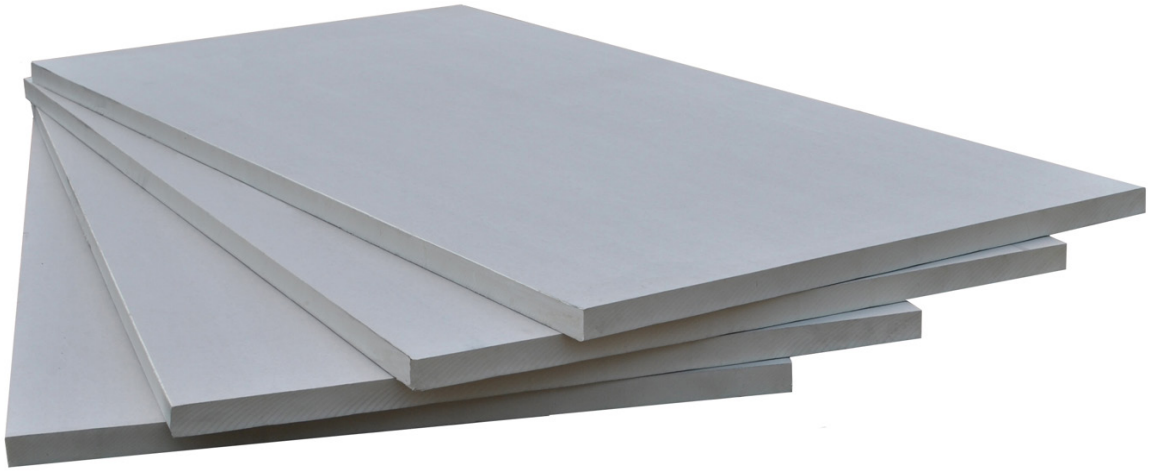

Figure 1. Durasheath

2.1.1 Durasheath is a proprietary Foam Plastic Insulating Sheathing (FPIS) panel.

2.1.2 Durasheath consists of closed-cell rigid polyisocyanurate (polyiso) foam core bonded to inorganic, polymer coated, glass fiber mat facers on both sides (ASTM C1289 Type II, Class 2).

2.2 *Material Availability*

2.2.1 *Thickness:*

2.2.1.1 0.5" (12.7 mm) through 4.5" (114 mm)

2.2.2 *Standard Product Width:*

2.2.2.1 48" (1,219 mm)

2.2.3 *Standard Product Length:*

2.2.3.1 96" (2,438 mm)

2.2.3.2 108" (2,743 mm)

2.2.3.3 120" (3,048 mm)

2.2.3.4 144" (3,658 mm)

2.2.4 Custom lengths, widths, and thicknesses are available upon request.

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

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 These reports utilize 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 secretes 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, 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]

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 *Standards*

4.2.1 *ASTM C1289: Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board*

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

4.2.3 *ASTM E2178: Standard Test Method for Determining Air Leakage Rate and Calculation of Air Permeance of Building Materials*

4.2.4 *ASTM E2273: Standard Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies*

4.2.5 *NFPA 286: Standard Methods of Fire Test for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth*

4.3 *Regulations*

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

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

4.3.3 *IECC – 18, 21, 24: International Energy Conservation Code®*

4.3.4 *FBC-B—20, 23: Florida Building Code[25] – Building*

4.3.5 *FBC-R—20, 23: Florida Building Code[25] – Residential*

4.3.6 *CBC—19, 22: California Building Code[26] (Title 24, Part 2)*

4.3.7 *CRC—19, 22: California Residential Code[26] (Title 24, Part 2.5)*

5 Listed[27]

5.1 Equipment, materials, products, or services included in a List published by a nationally recognized testing laboratory (i.e., CBI), an approved agency (i.e., CBI and DrJ), and/or and approved source (i.e., DrJ), or other organization(s) concerned with product evaluation (i.e., DrJ), that maintains periodic inspection (i.e., 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.

6 Tabulated Properties Generated from Nationally Recognized Standards

6.1 *General*

6.1.1 Durasheath is used as wall sheathing and continuous insulation in buildings constructed in accordance with the IBC and IRC.

6.1.2 Durasheath is a non-structural FPIS panel used as thermal insulation within the building envelope, including, but not limited to: attic, crawl space, wall, roof, ceiling, floor, and foundation assemblies.

6.1.3 Durasheath shall not be used as a nail base for other building products.

6.1.4 Stud walls insulated with Durasheath must be properly braced for lateral loads per the applicable building code.

6.1.5 The wall system shall be designed to handle cladding loads and wind loads per the applicable code.

6.2 *Thermal Resistance (R-Value)*

6.2.1 Rmax Durasheath meets the continuous insulating sheathing requirements complying with the provisions of IRC Section N1102, IECC Section C402, and IECC Section R402.

6.3 *Drainage Efficiency*

6.3.1 Durasheath installed over Henry® 2-Ply Jumbo Tex® weather-resistive barrier may be used as a substrate beneath exterior stucco systems to provide a drainage efficiency of greater than ninety percent (90%) when tested in accordance with ASTM E2273, per IBC Section 1407.4.1 and IRC Section R703.9.2, Number 3.

6.3.2 Use of Durasheath installed over other water-resistant barriers is outside the scope of this report.

6.4 *Air Barrier*

6.4.1 Durasheath meets the requirements of IRC Section N1102, IECC Section C402, and IECC Section R402 for use as a component of the air barrier when installed in accordance with the manufacturer installation instructions and this report.

6.4.2 The air barrier material properties of Durasheath are shown in **Table 1**.

Table 1. Air Barrier Material Properties

Air Permeance[1]
< 0.02 L/(s·m^2)
Imperial: 1 L/(s·m^2)= 0.2 cfm/ft^2 1. Tested in accordance with ASTM E2178.

6.4.3 The air permeance of an air barrier material is defined in IECC Section R303.1.5 as being no greater than 0.02 L/(s·m^2) at 75 Pa (0.004 cfm/ft^2 at 1.57 psf) pressure difference when tested in accordance with ASTM E2178.

6.4.4 When used as part of a continuous air barrier, all sheathing panel joints shall be sealed. The transitions, including top and bottom of walls and all penetrations, shall also be sealed in accordance with the manufacturer installation instructions and this report.

6.5 *Fire Safety Performance*

6.5.1 *Surface Burning Characteristics:*

6.5.1.1 Durasheath has the flame spread and smoke developed ratings shown in **Table 2**, when tested in accordance with ASTM E84 per IBC Section 2603.3, IBC Section 2603.5.4, and IRC Section R303.3.[28]

Table 2. Surface Burn Characteristics[1,2]

Thickness (in)	Flame Spread Index	Smoke Developed Index	Classification
< 1"	≤ 40	≤ 250	Class B
≥ 1"	≤ 25	≤ 250	Class A

SI: 1 in = 25.4 mm
1. Tested in accordance with ASTM E84.
2. Foam core only.

6.5.2 *Thermal Barrier and Ignition Barrier (IRC and IBC Buildings):*

6.5.2.1 Durasheath, up to 4.5" in walls only or ceilings only, is approved for use in attics, crawl spaces, or other uninhabited spaces, without a thermal barrier or ignition barrier, based on large-scale testing in accordance with NFPA 286 per IBC Section 2603.9 and IRC Section R303.6.[29]

6.5.2.2 Durasheath, up to 1" in walls and/or ceilings, is approved for use in attics, crawl spaces, or other uninhabited spaces without a thermal barrier or ignition barrier, based on large-scale testing in accordance with NFPA 286 per IBC Section 2603.9 and IRC Section R303.6.[30]

6.5.2.3 Durasheath, up to 12" (304.8 mm) in thickness, may be installed within the building envelope (including, but not limited to, attics, crawl spaces, wall, roof, floor, and ceiling assemblies) of all building types when separated from the interior with a thermal barrier consisting of a minimum $^1/_2$" gypsum wallboard or an approved equivalent in accordance with IBC Section 2603.4 and IRC Section R303.4.[31]

6.5.2.4 In applications where panels are used in both walls and ceilings, but only one is allowed to be left exposed per **Section 6.5.2.1**, the other must meet the requirements of **Section 6.5.2.3**.

6.5.2.5 For IRC applications in attics, crawl spaces, or other uninhabited spaces of **Section 6.5.2.1** or **Section 6.5.2.2**, approval is limited to areas where access to the space is required by IRC Section R807.1 or IRC Section R408.4.

6.5.2.6 For IRC and IBC applications in attics, crawl spaces, or other uninhabited spaces of **Section 6.5.2.1** or **Section 6.5.2.2**, approval is limited to areas where entry is made only for the purposes of repairs or maintenance.

6.5.2.7 Panels may be installed in single or multiple layers.

6.6 Where the application falls outside of the performance evaluation, conditions of use, and/or installation requirements set forth herein, alternative techniques shall be permitted in accordance with accepted engineering practice and experience. This includes but is not limited to the following areas of engineering: mechanics or materials, structural, building science, and fire science.

7 Certified Performance[32]

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.[33]

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.[34]

8 Regulatory Evaluation and Accepted Engineering Practice

8.1 Durasheath complies with the following legislatively adopted regulations and/or accepted engineering practice for the following reasons:

8.1.1 Stucco finish with drainage per IBC Section 1407.4.1 and IRC Section R703.9.2.

8.1.2 Foam plastic insulation performance in accordance with IBC Section 2603 and IRC Section R303.[35]

8.1.3 Performance for use as a continuous air barrier in accordance with IRC Section N1102.4 and IECC Section C402.

8.1.4 Surface burning characteristics in accordance with IBC Section 2603.3, IBC Section 2603.5.4, and IRC Section R303.3.[36]

8.1.5 Special approval for use without a thermal barrier or ignition barrier in accordance with IBC Section 2603.4.1.6, IRC Section R303.5.3,[37] and IRC Section R303.5.4.[38]

8.2 Any building code, regulation and/or accepted engineering evaluations (i.e., 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[39] to practice product and regulatory compliance services within its scope of accreditation and engineering expertise,[40] 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.

8.4 Any regulation specific issues not addressed in this section are outside the scope of this report.

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 *Installation Procedure*

9.3.1 *Henry 2-Ply Jumbo Tex Water-Resistive Barrier (WRB):*

9.3.1.1 Apply to sheathed wall in strips, overlapping each strip 3" minimum at horizontal seams.

9.3.1.2 At vertical seams and corners, 2-Ply Jumbo Tex must overlap a minimum of 6".

9.3.1.3 Do not tape horizontal or vertical seams.

9.3.1.4 Attach to structural sheathing with minimum $^{5}/_{16}$" x $^{5}/_{16}$" galvanized staples spaced at 12" on center.

9.3.2 *Rmax Durasheath:*

9.3.2.1 Install vertically or horizontally with all edges tightly butted.

9.3.2.2 Vertical joints must be backed by framing or structural sheathing.

9.3.2.3 Install with 1" diameter cap nails or equivalent. Do not countersink the washers.

9.3.2.4 Fasteners must penetrate the framing or structural sheathing a minimum of 1".

9.3.3 Consult the manufacturer for further details.

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 Material properties testing in accordance with ASTM C1289

10.1.2 Drainage testing in accordance with ASTM E2273

10.1.3 Air permeance testing in accordance with ASTM E2178

10.1.4 Flame spread and smoke developed ratings testing in accordance with ASTM E84

10.1.5 Room corner tests in accordance with NFPA 286

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.[41]

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

11 Findings

11.1 As outlined in **Section 6**, Durasheath has 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, Durasheath shall be approved for the following applications:

11.2.1 Buildings constructed in accordance with the IBC and the IRC.

11.2.2 Stucco finish with drainage per IBC Section 1407.4.1 and IRC Section R703.9.2, Number 3.

11.2.3 Performance of foam plastics in accordance with IBC Section 2603 and IRC Section R303.[42]

11.2.4 Use as insulating sheathing in accordance with IRC Section N1102.1, IRC Section N1102.2, IECC Section R402, and IECC Section C402.

11.2.5 Use as a continuous air barrier in accordance with IRC Section N1102.4 and IECC Section C402.

11.2.6 Flame spread and smoke developed indices in accordance with IBC Section 2603.5.4 and IRC Section R303.3.[43]

11.2.7 Use without a thermal barrier or ignition barrier in accordance with IBC Section 2603.4.1.6, IRC Section R303.5.3,[44] and IRC Section R303.5.4.[45]

11.3 Any application specific issues not addressed herein can be engineered by an RDP. Assistance with engineering is available from Rmax.

11.4 IBC Section 104.2.3[46] (IRC Section R104.2.2[47] and IFC Section 104.2.3[48] 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.

11.5 **Approved:**[49] Building regulations require that the building official shall accept duly authenticated reports.[50]

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

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

11.5.3 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.

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

11.7 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.[51]

12 Conditions of Use

12.1 Material properties shall not fall outside the boundaries defined in **Section 6**.

12.2 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.

12.3 As listed herein, Durasheath is subject to the following conditions:

12.3.1 Installation shall comply with this report and the manufacturer installation instructions. In the event of a conflict between this report and the manufacturer installation instructions, the more restrictive shall govern.

12.3.2 Durasheath must be protected from the interior of the building by a thermal barrier in accordance with IBC Section 2603.4 and IRC Section R303.4[52] except as allowed in **Section 6.5.2**.

12.3.3 In areas where the probability of termite infestation is *"very heavy"* as indicated in IBC Section 2603.8 and IRC Figure R305.4,[53] Durasheath shall not be installed on the exterior face of foundation walls, under interior or exterior foundation walls, or under slab foundations located below grade. The clearance between the products installed above grade and exposed earth shall be at least 6".

12.3.4 ***Exceptions:***

12.3.4.1 Buildings where the structural members of the walls, floors, ceilings, and roofs are entirely of noncombustible materials or are pressure preservative treated wood.

12.3.4.2 When, in addition to the requirements of IRC Section R305.1,[54] an approved method of protecting Durasheath and the structure from subterranean termite damage is used.

12.3.4.3 On the interior side of basement walls.

12.3.5 Durasheath is not to be used as a structural nailing base for claddings.

12.4 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:

12.4.1 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.

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

12.4.3 This innovative product has an internal quality control program and a third-party quality assurance program.

12.4.4 At a minimum, this innovative product shall be installed per **Section 9**.

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

12.4.6 This innovative product has 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.

12.4.7 The application of this innovative product 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.

12.5 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.

12.6 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).

12.7 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 Durasheath, as listed in **Section 1.1**, is 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.rmax.com.

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.

Issue Date: May 4, 2022
Subject to Renewal: July 1, 2026

FBC Supplement to Report Number 2202-02

REPORT HOLDER: Rmax

1 Evaluation Subject

1.1 Durasheath

2 Purpose and Scope

2.1 Purpose

2.1.1 The purpose of this Report Supplement is to show Durasheath, recognized in Report Number 2202-02, has also been evaluated for compliance with the codes listed below as adopted by the Florida Building Commission.

2.2 *Applicable Code Editions*

2.2.1 *FBC-B—20, 23: Florida Building Code – Building*

2.2.2 *FBC-R—20, 23: Florida Building Code – Residential*

3 Conclusions

3.1 Durasheath, described in Report Number 2202-02, complies with the FBC-B and FBC-R and is subject to the conditions of use described in this supplement.

3.2 Where there are variations between the IBC and IRC and the FBC-B and FBC-R applicable to this report, they are listed here:

3.2.1 FBC-B Section 104 is reserved.

3.2.2 FBC-B Section 110.4 is reserved and replaces IBC Section 110.4.

3.2.3 FBC-B Section 104.6 is reserved and replaces IBC Section 104.4.

3.2.4 FBC-B Section 104.11 replaces IBC Section 104.2.3 and Section 104.2.3.2.

3.2.5 FBC-B Section 105.3 replaces IBC Section 105.3.

3.2.6 FBC-B Section 105.3.1 replaces IBC Section 105.3.1.

3.2.7 FBC-B Section 110.3 replaces IBC Section 110.3.

3.2.8 FBC-B Section 1408.4.1 replaces IBC Section 1407.4.1.

3.2.9 FBC-B Section 1707.1 replaces IBC Section 1707.1.

3.2.10 FBC-B Section 2306.1 replaces IBC Section 2306.1.

3.2.11 FBC-B Section 2306.3 replaces IBC Section 2306.3.

3.2.12 FBC-B Section 2306.4 replaces IBC Section 2306.4.

3.2.13 FBC-B Section 2603 replaces IBC Section 2603.

3.2.14 FBC-B Section 2603.8 replaces IBC Section 2603.8.

3.2.15 FBC-B Section 2603.9 replaces IBC Section 2603.9.

3.2.16 FBC-R Section R104 and Section R109 are reserved.

3.2.17 FBC-R Section R318 replaces IRC Section R305.1.

3.2.18 FBC-R Section R318.8 replaces IRC Figure R305.4.

3.2.19 FBC-R Section R316 replaces IRC Section R303.

3.2.20 FBC-R Section R316.3 replaces IRC Section R303.3.

3.2.21 FBC-R Section R316.4 replaces IRC Section R303.4.

3.2.22 FBC-R Section R316.5.3 replaces IRC Section R303.5.3.

3.2.23 FBC-R Section R316.5.4 replaces IRC Section R303.5.4.

3.2.24 FBC-R Section R316.6 replaces IRC Section R303.6.

3.2.25 FBC-R Section R408.4 replaces IRC Section R408.4.

3.2.26 FBC-R Section R807.1 replaces IRC Section R807.1.

3.2.27 FBC-R Section N1101.1 replaces IRC Section N1102, IRC Section N1102.1, IRC Section N1102.2, and IRC Section N1102.4.

4 Conditions of Use

4.1 Durasheath, described in Report Number 2202-02, must comply with all of the following conditions:

4.1.1 All applicable sections in Report Number 2202-02.

4.1.2 The design, installation, and inspections are in accordance with additional requirements of FBC-B Chapter 16 and Chapter 17, as applicable.

Issue Date: May 4, 2022
Subject to Renewal: July 1, 2026

CBC and CRC Supplement to Report Number 2202-02

REPORT HOLDER: Rmax

1 Evaluation Subject

1.1 Durasheath

2 Purpose and Scope

2.1 Purpose

2.1.1 The purpose of this Report Supplement is to show Durasheath, recognized in Report Number 2202-02 has also been evaluated for compliance with the codes listed below.

2.2 *Applicable Code Editions*

2.2.1 *CBC—19, 22: California Building Code (Title 24, Part 2)*

2.2.2 *CRC—19, 22: California Residential Code (Title 24, Part 2.5)*

3 Conclusions

3.1 Durasheath, described in Report Number 2202-02, complies with the CBC and CRC and is 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 CBC Section 2603 replaces IBC Section 2603.

3.2.6 CBC Section 2603.3 replaces IBC Section 2603.3.

3.2.7 CBC Section 2603.4 replaces IBC Section 2603.4.

3.2.8 CBC Section 2603.9 replaces IBC Section 2603.9.

3.2.9 CRC Section R104.6 replaces IBC Section R104.4.

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

3.2.11 CRC Section R316 replaces IRC Section R303.

3.2.12 CRC Section R316.3 replaces IRC Section R303.3.

3.2.13 CRC Section R316.4 replaces IRC Section R303.4.

3.2.14 CRC Section R316.5.3 replaces IRC Section R303.5.3.

3.2.15 CRC Section R316.5.4 replaces IRC Section R303.5.4.

3.2.16 CRC Section R316.6 replaces IRC Section R303.6.

3.2.17 CRC Section R318.1 replaces IRC Section R305.1.

3.2.18 CRC Section R318.4 replaces IRC Section R305.4.

3.2.19 CRC Section R408.4 replaces IRC Section R408.4.

3.2.20 CRC Section R807.1 replaces IRC Section R807.1.

3.2.21 CRC Part IV Energy Conservation is not adopted and replaces IRC Section N1102, IRC Section N1102.1, IRC Section N1102.2, and IRC Section N1102.4. (See California Energy Code, Title 24, Part 6.)

4 Conditions of Use

4.1 Durasheath, described in Report Number 2202-02, must comply with all of the following conditions:

4.1.1 All applicable sections in Report Number 2202-02.

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

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 FBC-B and FBC-R are the same as the 2024 IBC and 2024 IRC unless otherwise noted in the Florida Supplement at the end of this report.

26 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.

27 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

28 2021 IRC Section R316.3

29 2021 IRC Section R316.6

30 2021 IRC Section R316.6

31 2021 IRC Section R316.4

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

33 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

34 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

35 2021 IRC Section R316

36 2021 IRC Section R316.3

37 2021 IRC Section R316.5.3

38 2021 IRC Section R316.5.4

39 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.

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

41 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

42 2021 IRC Section R316

43 2021 IRC Section R316.3

44 2021 IRC Section R316.5.3

45 2021 IRC Section R316.5.4

46 2021 IBC Section 104.11

47 2021 IRC Section R104.11

48 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

49 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.

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

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

52 2021 IRC Section R316.4

53 2021 IRC Section R318.4

54 2021 IRC Section R318.1