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Revised Date: 11-28-2023
Renewal Date: 11-30-2024

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Section: 07 46 00 – Siding

Section: 07 43 00 – Composition Siding

REPORT HOLDER:

The Trex Company

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REPORT SUBJECT:

Trex Transcend Open-Joint Cladding

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021 and 2018 *International Building Code*® (IBC)
- 2021 and 2018 *International Residential Code*® (IRC)
- 2023 and 2020 *Florida Building Code* excluding High Velocity Hurricane Zone, HVHZ (see Section 9.0)

NOTE: This report references the most recent version of the codes cited. Section numbers in earlier editions of the codes may differ.

1.2 *Trex Transcend Open-Joint Cladding* has been evaluated for the following properties:

- Physical Properties
- Surface Burning
- Wind Load Resistance

1.3 *Trex Transcend Open-Joint Cladding* has been evaluated for the following uses:

- Use as an exterior wall cladding on building of type VB construction (IBC, FBC-B) and all construction types permitted under the IRC and FBC-R Residential.

2.0 STATEMENT OF COMPLIANCE

Trex Transcend Open-Joint Cladding complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

3.1 *Trex Transcend Open-Joint Cladding* is an extruded 1 x 6" squared edge wood-plastic composite (wpc) board that consists of a solid substrate that contains approximately 50% wood and 50% polyethylene. The deck board has a polymer capstock that covers 3 sides of the board and is embossed with a wood-like natural finish.

3.2 *Trex Transcend Open-Joint Cladding* is available in ten colors: Biscayne, Rainier, Jasper, Carmel, Rope Swing, Spiced Rum, Laval Rock, Island Mist, Havana Gold, and Tiki Torch.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Windload Resistance – Maximum allowable design pressures are shown in Table 2 for *Trex Transcend Open-Joint Cladding* when installed in accordance with this report.

4.2 *Trex Transcend Open-Joint Cladding* has a flame spread index not exceeding 200 when tested in accordance with ASTM E84.

5.0 INSTALLATION

5.1 General:

Trex Transcend Open-Joint Cladding must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.



5.2 Application:

5.2.1 *Trex Transcend Open-Joint Cladding* shall be installed with fastening as described in Table 2.

5.2.2 *Trex Transcend Open-Joint Cladding* shall be attached directly to spaced furring strips running perpendicular to the length of the cladding board. The furring shall be light-gage steel framing or nominal 2x_ wood furring. Attachment of furring to the supporting wall is outside the scope of this evaluation.

5.2.3 Supporting wall assembly shall have a weather-resistant exterior envelope in accordance with IBC Section 1402.2, including a water-resistive barrier in accordance with Section 1403.2 when applicable.

5.2.4 Flashing shall be installed in accordance with IBC Section 1404.4, and IRC Section R703.4.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.2 Wind design pressures determined from nominal design wind speeds (V_{asd}) in accordance with Section 1609.3.1 of the IBC and FBC shall not exceed the maximum allowable design pressures given in Table 2.

6.3 *Trex Transcend Open-Joint Cladding* is limited to exterior use on buildings of nonfire resistance-rated construction: IBC and FBC Type VB construction and all construction types permitted under the IRC.

6.4 The compatibility of all fasteners with supporting structure, including chemically treated wood, is not within the scope of this report and subject to approval by the code official.

6.5 Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of *Trex Transcend Open-Joint Cladding*. Other methods of attachment are outside the scope of this report.

6.6 The wood furring and wood furring attachment to the building structure is outside the scope of this report.

6.7 *Trex Transcend Open-Joint Cladding* recognized in this report are manufactured in accordance with the manufacturer's approved quality control system with inspections by Intertek.

6.8 *Trex Transcend Open-Joint Cladding* is manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Reports of testing in accordance with ASTM D7032-17 *Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails)*, including:

- Moisture Effect
- Temperature Effect
- Ultraviolet Resistance
- Freeze-Thaw Resistance
- Termite and Decay Resistance

7.2 Reports of testing to ASTM E330-14 *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and curtain Walls by Uniform Static Air Pressure Difference*.

7.3 Reports of testing in accordance with ASTM E84-18b *Test Method for Surface Burning Characteristics of Building Materials*.

7.4 Reports of evaluation and engineering analysis for allowable fastener capacities in accordance with NDS-2018 *National Design Specification (NDS) for Wood Construction*.

7.5 Reports of evaluation and engineering analysis for AISI S100-16(2020) w/S2-20 *North American Specification for the Design of Cold-formed Steel Structural Members*.

7.6 Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.





8.0 IDENTIFICATION

The *Trex Transcend Open-Joint Cladding* is identified with the manufacturer's name (The Trex Company), address and telephone number, the product name (*Trex Transcend Open-Joint Cladding*) the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0325).



9.0 FLORIDA BUILDING CODE

9.1 Scope of Evaluation:

Trex Transcend Open-Joint Cladding was evaluated for compliance with the *Florida Building Code – Building*, *Florida Building Code – Residential* and *Florida Building Code*.

9.2 Conclusion:

Trex Transcend Open-Joint Cladding, described in Sections 2.0 through 7.0 of this Research Report, comply with the

Florida Building Code – Building and Florida Building Code – Residential, subject to the following conditions:

- Use of the *Trex Transcend Open-Joint Cladding* for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code – Building* and the *Florida Building Code – Residential* has not been evaluated and is outside the scope of this Research Report.
- Intertek is an approved *evaluation entity* and *quality assurance entity* pursuant to Florida Statute 553.842 – *Product Evaluation and Approval*.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of *Trex Transcend Cladding* by Intertek.

10.3 Reference to the Intertek Directory of Building Products (<https://bpdirectory.intertek.com/>) is recommended to ascertain the current version and status of this report.

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TABLE 1 - PROPERTIES EVALUATED

PROPERTY	2021 IBC SECTION ¹	2021 IRC SECTION ¹	2023 FBC – Building ¹	2023 FBC – Residential ¹	2020 FBC – Building ¹	2020 FBC – Residential ¹
Physical Properties	1409.1		1411.1		1410.1	
	2612.2	--	2612.2	--	2612.2	--
	1612.4		2612.4		2612.4	
	2612.4					
Surface Burning	1409.1	R507.2.2	1411.1	R507.2.2	1410.1	R507.2.2
	2612.3		2612.3		2612.3	
Wind Load Resistance	1404.14	R703.1.2	1405.14	R703.1.2	1405.14	R703.1.2

¹ Section numbers may be different for earlier versions of the International and Florida codes.

TABLE 2 – TREX TRANSCEND OPEN-JOINT CLADDING ALLOWABLE DESIGN PRESSURES

Material	Min. Thickness	Spacing	FASTENER DESCRIPTION	ALLOWABLE DESIGN PRESSURE
2x Wood Furring ¹	1.5"	24" o.c.	Two (2) #10 x 2" <i>Starborn® Deckfast® Cap-Tor® xd</i> Composite Deck Screws -or- Two (2) #10 x 2" <i>Starborn® Deckfast®</i> Composite Deck Screws with <i>Pro Plug®</i> System	153 psf
2x Wood Furring ¹	1.5"	24" o.c.	Two (2) #10 x 1-7/8" <i>Starborn® Deckfast® Fascia System</i> Fascia Screws	136 psf
Steel Framing ²	0.048"	24" o.c.	Two (2) #10 x 1-5/8" <i>Starborn® Deckfast® Metal</i> Composite Deck Screws (With Optional <i>Pro Plug®</i> System)	193 psf

¹Wood furring shall be Spruce-Pine-Fir (SPF) or other wood with a specific gravity, G=0.42 or greater.

²Steel framing shall be cold-formed steel with a yield strength, fy=33 ksi or greater.



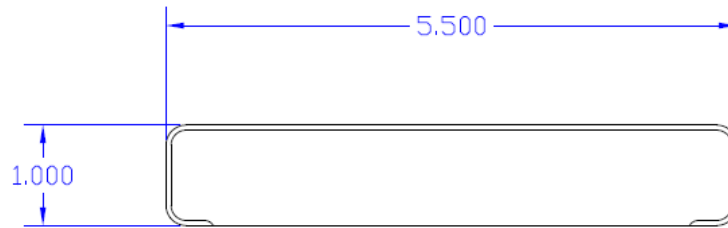


FIGURE 1 – TREX TRANSCEND OPEN-JOINT CLADDING