Code Compliance Research Report
CCRR-0301

Issue Date: 03-20-2019
Revision Date: 04-30-2026
Renewal Date: 03-31-2027

DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES
Section: 06 53 00 - Plastic Decking

REPORT HOLDER:
TREX COMPANY, INC.
2500 Trex Way
Winchester, VA 22601
www.trex.com

REPORT SUBJECT:
TREX Enhance® 1x6 composite deck boards
TREX Select® 1x6 and 2x6 composite deck boards
TREX Transcend® 1x6 and 2x6 composite deck boards
TREX Transcend® Lineage® 1x4 and 1x6 composite deck boards
TREX Signature® 1x6 composite deck boards
TREX® 1x6 Composite Deck Board
TREX® Composite Fascia 1x8 and 1x12 boards

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2024, 2021 and 2018 *International Building Code®* (IBC)
- 2024, 2021 and 2018 *International Residential Code®* (IRC)

NOTE: This report references 2024 Code sections. Section numbers in earlier versions of the Codes may differ.

1.2 *TREX®* deck boards have been evaluated for the following properties:

- Structural performance
- Durability
- Surface Burning
- Decay Resistance
- Termite Resistance
- Wind Uplift

1.3 *TREX®* deck boards have been evaluated for the following uses:

- Exterior walking surface on exterior decks, balconies, porches walkways and stair tread.
- The deck boards identified in this report may be used in One- and Two-Family Dwellings regulated by the IRC and other construction types regulated by the IBC in accordance with IBC Section 705.2.3 *Projection Protection*, where fire-resistance rated floor construction is not required for the deck or balcony.

2.0 STATEMENT OF COMPLIANCE

TREX® deck boards comply 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®* deck boards are co-extruded and semi-capped composite material composed of polyethylene and wood fiber.

3.2 *TREX Enhance®* 1x6 solid and grooved edge boards measure a nominal 1 inch thick and 5-1/2 inch wide and have flutes running the entire length along the bottom of the deck board. Grooved edge deck boards include a 5/16 in. deep by 1/8-in.-high groove on each of the long edges. Two profiles are produced, Enhance 2.0 with five flutes on the backside and Enhance with four flutes on the backside. See Figures 1 and 2.

3.2.1.1 *TREX Enhance® is* available in twelve colors: Beach Dune, Cinnamon Cove, Clam Shell, Coastal Bluff, Foggy Wharf, Golden Hour, Honey Grove, Pebble Beach, Rocky Harbor, Saddle and Tide Pool, and Toasted Sand.

3.3 *TREX Select®* is provided in two thicknesses; 1x6 measuring a nominal 7/8 inch thick and 5-1/2 inch wide, and 2x6 measuring a nominal 1-3/8 inch thick and 5-1/2 inch wide. See Figure 3. 1x6 grooved edge deck boards include a 5/16 inch deep by 1/8-inch-high groove on each of the long edges.

3.3.1 *TREX Select®* is available in eight colors: Madeira, Malted Barley, Millstone, Pebble Grey, Saddle, Winchester Grey, Whiskey Barrel and Woodland Brown.

3.4 *TREX Transcend®* is provided in two thicknesses; 1x6 measuring a nominal 15/16 inch thick and 5-1/2 inch wide, and 2x6 measuring a nominal 1-3/8 inch thick and 5-1/2 inch wide. See Figure 4. 1x6 grooved edge deck boards include a 5/16 in. deep by 1/8 in. high groove on each of the long edges.

3.4.1 *TREX Transcend® is* available in nine colors: Gravel Path, Havana Gold, Heron Grey, Island Mist, Lava Rock, Rope Swing, Spiced Rum, Tiki Torch and Vintage Lantern.

3.5 *TREX Transcend® Lineage®* is provided in two thicknesses; 1x4 measuring a nominal 1 inch thick and 3-5/8 inch wide and 1x6 measuring a nominal 15/16 inch thick and 5-1/2 inch wide. See Figure 5. 1x6 grooved edge deck boards include a 5/16 in. deep by 1/8 in. high groove on each of the long edges.

3.5.1 *TREX Transcend® Lineage®* is available in seven colors: Biscayne, Carmel, Hatteras, Island Mist Lineage, Jasper, Rainier and Salt Flat.

3.6 *TREX Signature® 1x6 s*olid and grooved edge boards measure a nominal 1 in. thick and 5-1/2 in. wide. See Figure 6. Grooved edge deck boards include 5/16 in. deep by 1/8 in. high groove on each of the long edges. The top surface has an embossed simulated wood-grain pattern.

3.6.1 *TREX Signature®* is available in two colors: Whidbey and Ocracoke.

3.7 *TREX® 1x6 Composite Deck Board* solid and grooved edge boards measure a nominal 7/8 inch thick and 5-1/2 inch wide.. See Figure 7. 1x6 grooved edge deck boards include a 5/16 in. deep by 1/8-in.-high groove on each of the long edges.

3.7.1 *TREX® Composite Deck Board* is available in one color: Sandy Shores.

3.8 *TREX® Composite Fascia* boards are available in two sizes: 1x8 measuring a nominal 3/4 inch thick and 7-1/4 inch wide and 1x12 measuring a nominal 3/4 inch thick and 11-3/8 inch wide. See Figure 8.

3.8.1 *TREX® Composite Fascia* board is available in thirty-nine colors: Beach Dune, Biscayne, Carmel, Cinnamon Cove, Clam Shell, Coastal Bluff, Foggy Wharf, Golden Hour, Gravel Path, Hatteras, Havana Gold, Heron Gery, Honey Grove, Island Mist, Island Mist Lineage, Jasper, Lava Rock, Madeira, Malted Barley, Millstone, Ocracoke, Pebble Beach, Pebble Grey, Rainier, Rocky Harbor, Rope Swing, Saddle, Salt Flat, Sandy Shores, Spiced Rum, Tide Pool, Tiki Torch, Toasted Sand, Universal White, Vintage Lantern, Whidbey, Whiskey Barrel, Winchester Grey and Woodland Brown.

4.0 PERFORMANCE CHARACTERISTICS

4.1 *TREX®* deck boards are rated for uniform live load ratings as identified in Table 2.

4.2 Deck boards used as stair treads are rated for the code-prescribed concentrated load equal to 300 lbs. when installed with a maximum support spacing identified in Table 2. Deck boards used as stair treads shall be installed in a minimum two-span condition.

4.3 *TREX®* deck boards have wind uplift resistance ratings as indicated in Table 1 with the fastening specified.

4.4 *TREX® Composite Fascia* boards are non-structural and not rated for live load, snow load or wind load.

4.5 *TREX®* deck boards have a flame spread index of less than 200 when tested in accordance with ASTM E84.

4.6 Materials are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effect, attack from termites, and fungus decay.

4.7 Structural performance has been demonstrated for a temperature range from -20 °F to 125 °F.

5.0 INSTALLATION

5.1 *TREX®* deck boards 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 Decking can be installed on full runs or uniformly staggered on the deck support structure. See Table 1 for fastening descriptions and uplift ratings.

5.3 *TREX® Composite Fascia* boards are only to be installed with their primary surface vertical for the purpose of concealing deck undersides at the edges or perimeter of the deck. Allowable pull-through values for various fasteners are presented in Table 3 to assist a registered design professional in establishing fastening requirements. A minimum of two fasteners shall be used at each fastening location.

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 Deck boards placed at an angle other than 90 degrees to the supporting joist will require support framing at a reduced spacing such that the span of the deck board does not exceed the maximum span in Table 2.

6.3 The wind uplift resistance rating recognized in this report is based on attachment to treated Southern Pine framing (specific gravity, G=0.55). Installation on wood framing with a lesser specific gravity may result in a lower wind uplift rating.

6.4 Where required by the building official, engineering calculations and details shall be provided. The calculation shall verify that the anchorage complies with the building code for the type of framing and condition of the supporting construction.

6.5 Compatibility of the supporting construction materials with all metal fasteners are subject to approval by the code official.

6.6 The deck boards have not been evaluated for use in areas subject to Formosan termite attack.

6.7 *TREX®* deck boards are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Manufacturer's drawings and installation instructions.

7.2 Reports of testing in accordance with ICC-ES AC174, *Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails)*, approved January 2012, editorially revised April 2024.

7.3 The reports of testing and engineering analysis demonstrating compliance with the performance requirements of ASTM D7032-21, *Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite and Plastic Lumber Deck Boards, Stair Treads, Guards, and Handrails* and ANSI/AWC NDS-2015 – Wind Uplift Analysis.

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

8.0 IDENTIFICATION

TREX® deck boards are identified with the manufacturer's name (*TREX Company, Inc.)* the website address www.trex.com, the product name, the Intertek Mark as shown below and, the Code Compliance Research Report number (CCRR-0301).

9.0 OTHER CODES

This section is not applicable.

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 the product by Intertek.

10.3 Reference to the https://bpdirectory.intertek.com is recommended to ascertain the current version and status of this report.

Table 1 – Fastening Schedule and Wind Uplift Ratings

Product		Fastening Description	Wind Uplift Resistance
Trex Enhance®	Solid	Two #8 x 2-1/2 in. stainless steel screws on support framing spaced 16 in. on center	150 psf
	Grooved	Trex Hideaway® Hidden Fastener system on support framing spaced 16 in. on center using one #8 x 1-5/8 in. trim head stainless screw as supplied with the clips. Stainless steel Trex Hideaway® Start Clips are attached to the ledger board at each joist location with one #8-10 x 1-5/8" star drive stainless screw. See Figure 9.	139 psf
Trex Select®	*1x6* Solid	Two #10 x 2-3/4-inch TrapEase II Composite Deck Screws on support framing spaced 16 in. on center	724 psf
		Two #10 x 2-1/2-inch TREX Hideaway Composite Plug Screws on support framing spaced 24 in. on center.	283 psf
	1x6 Grooved	Trex Hideaway® Hidden Fastener system on support framing spaced 16 in. on center using one #8 x 1-5/8 in. trim head stainless screw as supplied with the clips. Stainless steel Trex Hideaway® Start Clips are attached to the ledger board at each joist location with one #8-10 x 1-5/8" star drive stainless screw. See Figure 9.	117 psf
	2x6 Solid	Two #8 (0.178 in. major dia.), 2-1/2-inch long HEADDCOTE stainless steel screws on support framing spaced 16 in. on center	429 psf
		Two #8 (0.178 in. major dia.), 2-1/2-inch long HEADDCOTE stainless steel screws on support framing spaced 24 in. on center	286 psf
Trex Transcend®	*1x6* Solid	Two #8 (0.178 in. major dia.), 2-1/2-inch long HEADDCOTE stainless steel screws on support framing spaced 16 in. on center	561 psf
		Two #10 x 2-1/2-inch TREX Hideaway Composite Plug Screws on support framing spaced 24 in. on center.	283 psf
	1x6 Grooved	Trex Hideaway® Hidden Fastener system on support framing spaced 16 in. on center using one #8 x 1-5/8 in. trim head stainless screw as supplied with the clips. Stainless steel Trex Hideaway® Start Clips are attached to the ledger board at each joist location with one #8-10 x 1-5/8" star drive stainless screw. See Figure 9.	131 psf
	2x6 Solid	Two #8 (0.178 in. major dia.), 2-1/2-inch long HEADDCOTE stainless steel screws on support framing spaced 16 in. on center	429 psf
		Two #8 (0.178 in. major dia.), 2-1/2-inch long HEADDCOTE stainless steel screws on support framing spaced 24 in. on center	286 psf

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Table 1 – Fastening Schedule and Wind Uplift Ratings (Continued)

Trex Transcend® Lineage®	1x6 Solid	Two #8 (0.178 in. major dia.), 2-1/2-inch long HEADDCOTE stainless steel screws on support framing spaced 16 in. on center	561 psf
		Two #10 x 2-1/2-inch TREX Hideaway Composite Plug Screws on support framing spaced 24 in. on center.	283 psf
	1x4 Solid	Two #8 (0.178 in. major dia.), 2-1/2-inch long HEADDCOTE stainless steel screws on support framing spaced 16 in. on center	561 psf
	1x6 Grooved	Trex Hideaway® Hidden Fastener system on support framing spaced 16 in. on center using one #8 x 1-5/8 in. trim head stainless screw as supplied with the clips. Stainless steel Trex Hideaway® Start Clips are attached to the ledger board at each joist location with one #8-10 x 1-5/8" star drive stainless screw. See Figure 9.	131 psf
Trex Signature®	Solid	Two TrapEase II® composite deck screws	150 psf
	Grooved	Trex Hideaway® Hidden Fastener system on support framing spaced 16 in. on center using one #8 x 1-5/8 in. trim head stainless screw as supplied with the clips. Stainless steel Trex Hideaway® Start Clips are attached to the ledger board at each joist location with one #8-10 x 1-5/8" star drive stainless screw. See Figure 9.	117 psf
Trex® Composite Deck Board	*1x6* Solid	Two #10 x 2-3/4-inch TrapEase II Composite Deck Screws on support framing spaced 16 in. on center	724 psf
	1x6 Grooved	Trex Hideaway® Hidden Fastener system on support framing spaced 16 in. on center using one #8 x 1-5/8 in. trim head stainless screw as supplied with the clips. Stainless steel Trex Hideaway® Start Clips are attached to the ledger board at each joist location with one #8-10 x 1-5/8" star drive stainless screw. See Figure 9.	117 psf

Table 2 – Span/Load and Stair Tread Span Ratings

Product	Span/Load Rating (inches/psf)	Maximum Stair Tread Span[(1)]
Trex Enhance®	16/100	9 inches
Trex Select® 1x6	16/100, 24/85	12 inches
Trex Select® 2x6	16/200, 24/100	16 inches
Trex Transcend® 1x6	16/100, 24/85	12 inches
Trex Transcend® 2x6	16/200, 24/100	16 inches
Trex Transcend® Lineage® 1x4	16/100	12 inches
Trex Transcend® Lineage® 1x6	16/100, 24/85	12 inches
Trex Signature®	16/100	12 inches
Trex® Composite Deck Board 1x6	16/100	12 inches

[(1)] Deck boards used as stair treads shall be installed in a minimum two-span condition.

Table 3 - Fastener Pull-Through Values for TREX® Composite Fascia Board

Fastener	Allowable Pull-Through Capacity
#10 x 1-3/4" Cortex® Fascia Screw	180 lb.
#10 x 1-7/8" Starborn® Pro Plug® Screw	174 lb.
#10 x 1-7/8" Starborn® Fascia Screw	277 lb.
#8 x 1-3/4" SplitStopTM Fascia Screw	275 lb.
#8 x 1-3/4" Simpson Strong-Tie Fascia Screw	309 lb.
#10 x 1-3/4" FastenMaster TrapEase® Fascia Screw	218 lb.
#10 x 1-3/4" Trex® Hideaway® Composite Fascia Screw	229 lb.



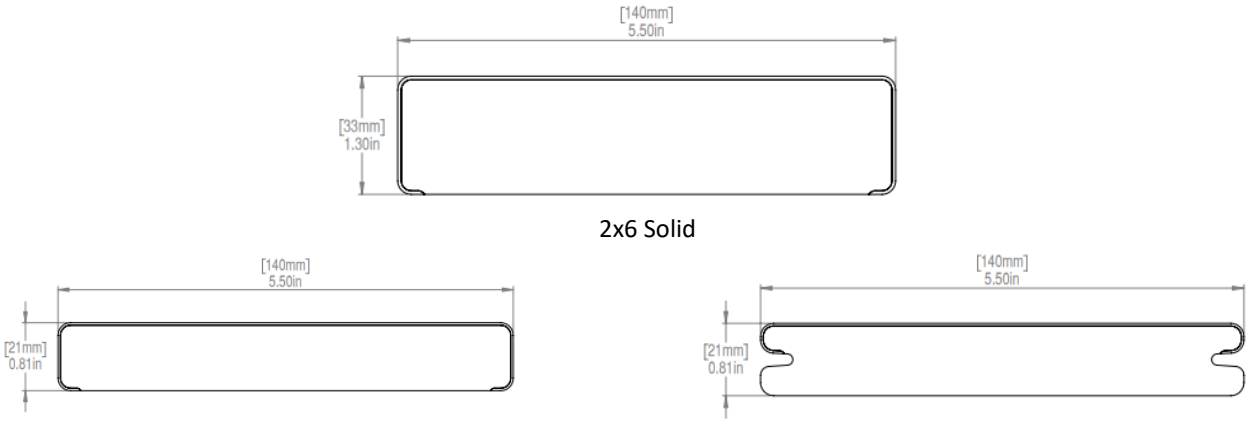
Solid Grooved

FIGURE 1 – *TREX ENHANCE® 2.0* DECK BOARD



Solid Grooved

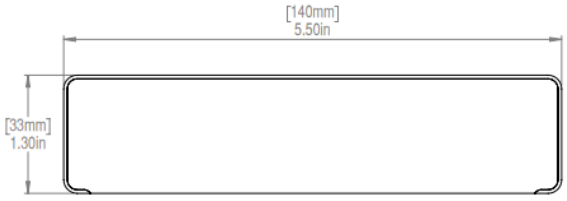
FIGURE 2 – *TREX ENHANCE®* DECK BOARD



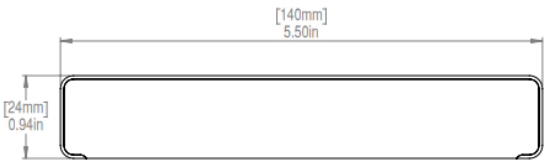
2x6 Solid

1x6 Solid 1x6 Grooved

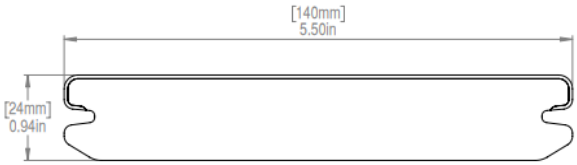
FIGURE 3 – *TREX SELECT®* 2X6 AND 1X6 DECK BOARD



2x6 Solid

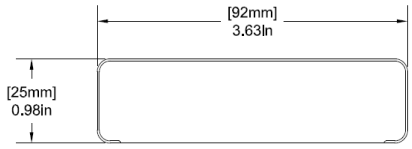


1x6 Solid

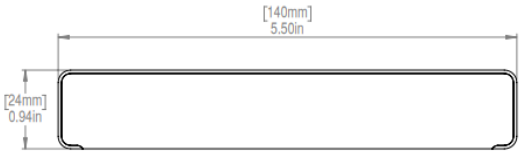


1x6 Grooved

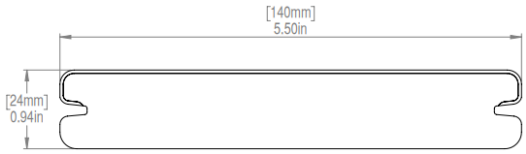
FIGURE 4 – *TREX TRANSCEND®* 2X6 AND 1X6 DECK BOARD



1x4 Solid

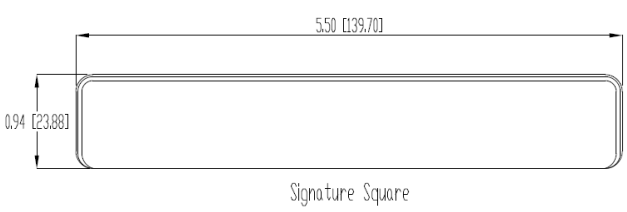


1x6 Solid

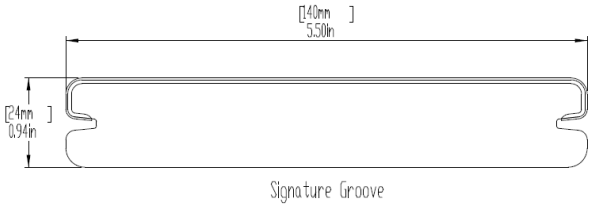


1x6 Grooved

FIGURE 5 – *TREX TRANSCEND® LINEAGE®* DECK BOARD



Solid



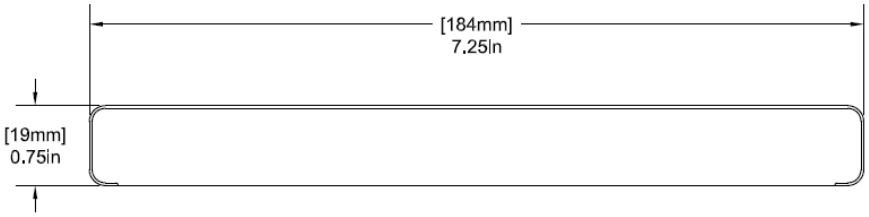
Grooved

FIGURE 6 – *TREX SIGNATURE®* DECK BOARDS

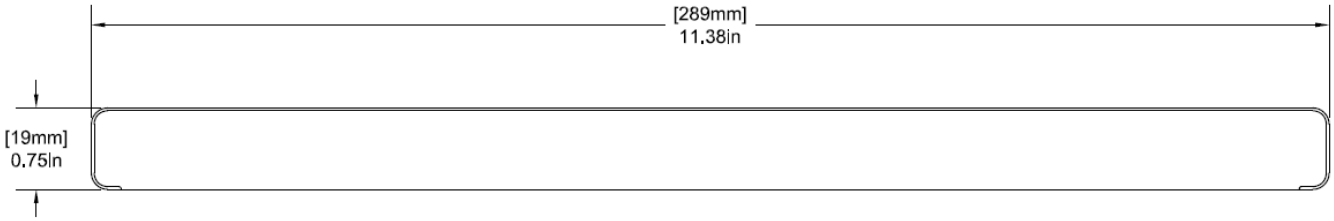


1x6 Solid 1x6 Grooved

FIGURE 7 – *TREX® COMPOSITE DECK BOARD* 1X6 DECK BOARD



1x8 Solid



1x12 Solid

FIGURE 8 – *TREX® COMPOSITE* FASCIA BOARD

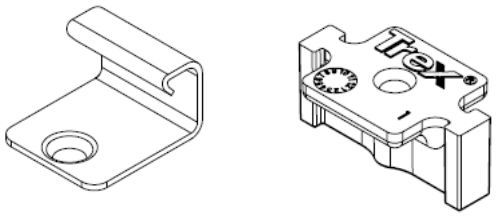


FIGURE 9 – *START CLIP* (LEFT) AND *TREX HIDEAWAY® UNIVERSAL HIDDEN FASTENER*