

# **ICC-ES VAR Environmental Report**

VAR-1011 Reissued June 2021 This report is subject to renewal June 2023.

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DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES Section: 06 53 00—Plastic Decking Section: 06 63 00—Plastic Railings

#### **REPORT HOLDER:**

TREX COMPANY, INC.

#### **EVALUATION SUBJECT:**

TREX<sup>®</sup> TRANSCEND<sup>®</sup>, TREX ENHANCE<sup>®</sup>, TREX SELECT<sup>®</sup> DECKING AND FASCIA BOARDS

## **1.0 EVALUATION SCOPE**

#### Compliance with the following evaluation guidelines:

- ICC-ES Environmental Criteria for Determination of Recycled Content of Materials (EC101), dated March 1, 2012.
- ICC-ES Environmental Criteria for Determination of Biobased Material Content (EC102), dated March 1, 2012.

Compliance eligibility with the applicable sections of the following green building rating systems, standards and codes:

- National Green Building Standard (ICC 700-2008) (see Table 4 for details)
- LEED for Homes 2008 (see Table 5 for details)
- LEED 2009 for New Construction and Major Renovations (see Table 6 for details)
- 2019 California Green Building Standards Code (CALGreen), Title 24, Part 11 (see Table 7 for details)

#### 2.0 USES

Trex<sup>®</sup> Transcend<sup>®</sup>, Trex Enhance<sup>®</sup> and Trex Select<sup>®</sup> are used for a variety of exterior applications, including nonstructural trim and deck boards and guardrail assemblies for balconies, porches and exterior walking surfaces.

# 3.0 DESCRIPTION

Trex<sup>®</sup> products are wood thermoplastic composite lumber (WTCL) made from a blend of wood and polyethylene. The products are manufactured in a variety of sizes, profiles, textures and colors.

#### 4.0 CONDITIONS

#### 4.1 Code Compliance:

The Trex<sup>®</sup> Transcend<sup>®</sup>, Trex<sup>®</sup> Enhance<sup>®</sup> and Trex<sup>®</sup> Select<sup>®</sup> Decking and Fascia Boards have been evaluated for compliance with the requirements of the International Codes as listed in Table 3 of this report.

# 4.2 Green Rating Systems, Standards and Code Eligibility:

The information presented in Tables 4 through 7 of this report provides a matrix of areas of evaluation and corresponding limitations and/or additional project-specific requirements, and offers benefits to individuals who are assessing eligibility for credits or points.

The final interpretation of the specific requirements of the respective green building rating system and/or standard rests with the developer of that specific rating system or standard or the AHJ, as applicable.

Compliance for items noted as "Verified Attribute" is subject to any conditions noted in the tables. Decisions on compliance for those items noted as "Eligible for Points" in Tables 4 through 7 rest with the user of this report, and those items are subject to the conditions noted. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. Rating systems or standards often provide supplemental information as guidance.

### 5.0 BASIS OF EVALUATION

The information in this report, including the "Verified Attribute," is based upon the following supporting documentation:

- 5.1 ICC-ES EC101. [Evaluation applies to ICC 700 Section 604.1; LEED Homes MR Credit 2.2; LEED NC MR Credit 4; CALGreen Section A4.405.3 & A5.504.4].
- **5.2** ICC-ES EC102. [Evaluation applies to ICC 700 Section 606.1(2)].
- **5.3** Evidence of compliance with termite resistance in accordance with Section 4.4 of the ICC-ES Acceptance Criteria for Thermoplastic Composite Wood Products (AC109) or Section 3.9 of the ICC-ES Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails) (AC174). [Evaluation applies to ICC 700 Section 602.8.)

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# 6.0 IDENTIFICATION

6.1 Trex products are identified with a stamp noting the manufacturer's name (Trex<sup>®</sup>) and address, the product name, the manufacturing location, the ICC-ES evaluation report number (if applicable), and the name or logo of the inspection or grading agency. The report subjects are also identified on the product and/or packaging with the VAR Environmental Report number (VAR-1011) and the ICC-ES SAVE Mark, as applicable.

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#### TABLE 1—RECYCLED CONTENT BY WEIGHT SUMMARY

PRODUCT NAME	RECYCLED MATERIALS	% PRE-CONSUMER RECYCLED CONTENT	% POST-CONSUMER RECYCLED CONTENT	% TOTAL RECYCLED CONTENT
Trex <sup>®</sup> Transcend <sup>®</sup>	Wood	47.70	0	
Trex <sup>®</sup> Enhance <sup>®</sup> Trex <sup>®</sup> Select <sup>®</sup>	Polyethylene	16.70	31.00	95.40

#### TABLE 2—BIOBASED MATERIAL CONTENT SUMMARY

PRODUCT NAME	MINIMUM % BIOBASED CONTENT	METHOD OF DETERMINATION
Trex® Transcend® Trex® Enhance® Trex® Select®	40%	Calculation

#### TABLE 3—ICC-ES EVALUATION REPORT NUMBER FOR TREX® PRODUCTS

PRODUCT NAME	REPORT NUMBER
Trex® Transcend® Trex® Enhance® Trex® Select®	<u>ESR-3168</u>

		T	ABLES 4 THROUGH 7			
Section Number	Section Intent	Possible Points	Conditions of Use to Qualify for Points	Trex® Transcend® Trex® Enhance® Trex® Select®		
1	ABLE 4—SUMMARY OF AREAS OF E		Y WITH THE NATIONAL GREEN BUILDING STANDARD (ICC 700-2008)			
602.8	Termite-resistant materials are used.	6 max	To earn 6 points all structural elements must be termite resistant in areas of heavy termite infestation. 2 or 4 points are available for areas with lower infestation probability.	•		
604.1	Use two or more major and/or minor building materials containing recycled content.	2 6 max	2, 4 or 6 points may be earned when products are used with another major building component with recycled content of $25\% < 50\%$ ; $50\% < 75\%$ ; $\ge 75\%$ , respectively.			
606.1(2)	Two types of biobased materials are used, each for more than 1 percent of the project's projected building material cost.	6	To earn 6 points two types of bio-based products must be used and the cost of each must be more than 1% of the projects projected building material cost.			
903.4.1(3)	The moisture content of lumber is sampled to ensure it does not exceed 19 percent prior to the surface and/or wall cavity exposure.	4	To earn 4 points the moisture content of lumber must be determined to not exceed 19%, such as measuring with a moisture meter, prior to enclosure.	0		
	TABLE 5—SUMMARY OF	AREAS O	F ELIGIBILITY WITH USGBC'S LEED FOR HOMES 2008			
MR 2.2	Recycled content.	0.5	To earn 0.5 point use materials with recycled content such that the sum of postconsumer recycled content plus $^{1}/_{2}$ the post industrial (preconsumer) content constitutes a minimum total recycled content of 25%.	•		
TABLE 6	-SUMMARY OF AREAS OF ELIGIBILI	TY WITH U	SGBC'S LEED 2009 FOR NEW CONSTRUCTION AND MAJOR RENOV	ATIONS		
MR4	Recycled content.	1 2 max	To earn 1 point use materials with recycled content such that the sum of postconsumer recycled content plus $1/_2$ of the preconsumer content constitutes at least 10%, based on the cost, of the total value of the materials in the project. To earn 2 points use 20% or more.	•		
	TABLE 7—SUMMARY OF AREAS OF	ELIGIBILI	TY WITH 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE			
A4.405.3 A5.405.4	Recycled content.	N/A	Use materials with postconsumer or preconsumer recycled content value for a minimum of 10% of the total value, based on estimated cost of materials on the project.	•		
4.505.3	Moisture content of building materials.	N/A	Moisture content of lumber may be measured with an appropriate handheld moisture meter.	0		
0	= Eligible for points					
•	= Verified attribute					

N/A = Not applicable (i.e. this is a minimum requirement that is meet and points/credits are not applicable).