

TECHNICAL SPECIFICATIONS

- 15 Australian Physical & Mechanical Properties
- 17 Architectural Specifier – Composite Decking
- 22 Material Safety Data Sheet (MSDS)
- 28 ICC-ES SAVE (Recycled Content Certification)

AUSTRALIAN PHYSICAL & MECHANICAL PROPERTIES OF TREX TRANSCEND[®] AND TREX ENHANCE[®]

AUSTRALIAN PHYSICAL & MECHANICAL PROPERTIES			
CRITERION	TEST METHOD	RESULTS	TEST EXPLANATION
Friction Coefficient	AS / NZS 4586 : 2004	Result/Class	
Trex Transcend	Appendix A, Wet Pendulum	28/Y (high)	Contribution to slip when wet with water
	Appendix B, Dry	0.45 / F-Pass	Classification of Pedestrian Surface Materials according to dry floor friction test
	Appendix A, B (dual)	Y	
	Appendix C wet barefoot ramp	31 degrees / C (highest class)	Classification of Pedestrian Surface Materials based on wet barefoot ramp test. Class A = lowest angle; C = highest angle. (higher is better)
	Appendix D, oil-wet ramp	15.1 degrees / R10 (Class 3 of 6)	Classification of Pedestrian surface materials according to the oil-wet ramp test
Trex Enhance	Appendix A, Wet Pendulum	30/Y	Contribution to slip when wet with water
	Appendix B, Dry	0.45/F	Classification of Pedestrian Surface Materials according to dry floor friction test
	Appendix A, B (dual)	Y	
	Appendix C wet barefoot ramp	31 degrees/C (highest class)	Classification of Pedestrian Surface Materials based on wet barefoot ramp test. Class A = lowest angle; C = highest angle. (higher is better)
	Appendix D, oil-wet ramp	17.4 degrees / R10 (Class 3 of 6)	Classification of Pedestrian surface materials according to the oil-wet ramp test
Combustion Testing	AS 3837:1998		Samples are placed in an oxygen calorimeter. Top of the board is ignited with a pilot capable of 25 kW/m2
Trex Transcend	Avg heat release	144.7 Kw / m2	Measured 600 seconds after ignition
Trex Enhance	Avg heat release	140.6 kW / m2	Measured 600 seconds after ignition
Trex Transcend	Max. heat release rate	437.2 kW / m2	Maximum heat released at any point in 60 minute test.
Trex Enhance	Max. heat release rate	365.3 kW / m2	Maximum heat released at any point in 60 minute test.

* Australian Lab = CSIRO Materials Science and Engineering – North Ryde NSW Australia

PHYSICAL & MECHANICAL PROPERTIES OF TREX TRANSCEND[®] AND TREX ENHANCE[®]

GENERAL PHYSICAL & MECHANICAL PROPERTIES			
CRITERION	TEST METHOD	RESULTS	TEST EXPLANATION
Thermal Expansion Coefficient (Transcend and Enhance)	ASTM D696		
Width		8.94 x 10 ⁻⁵ cm/cm/C	Distance a 305mm sample expands or contracts in the width direction at various temperatures
Length		4.1 x 10 ⁻⁵ cm/cm/C	Distance a 305mm sample expands or contracts in the length direction at various temperatures
Compressive Strength (Transcend and Enhance)	ASTM D695		
Surface		12.45 MPa	Force required to compress the surface of a sample between two (2) 50mm spheres for a 0.2mm indentation
Edge		13.40 MPa	Force required to compress the edges of a sample between two (2) 50mm spheres for a 0.2mm indentation
Relative Density [g/cm³] (Transcend and Enhance)	ASTM D792		
		1.05	Mass per unit volume as compared to water (1.00 g/cm ³)
Resistance to Fungal Infestation	ASTM D1413		
[Brown, White Rot]		No decay	Samples are subjected to wood destroying fungi (white and brown rot) and evaluated for decay and weight loss.
Screw Retention (Transcend and Enhance)	ASTM D1761		
#8 screws		1,377.25 N/m	Amount of force it takes for a screw to be removed from a deck board
Water Absorption (Transcend and Enhance)	ASTM D1037		
Vol. %		<0.5%	Weight gain measurement of a deck board when immersed in water for 24 hrs.
Mass %		0	Change in mass measurement of a deck board when immersed in water for 24 hrs.

*ASTM (American Society for Testing of Materials) tests conducted at Washington State University (Pullman, WA, USA)

ARCHITECTURAL SPECIFIER

COMPOSITE DECKING

PART 1: GENERAL

1.1 Section Includes

- A Composite Decking

1.2 References

- A AS/NZS 4586:2004: Test Method for Slip Resistance classification for new pedestrian surface materials.
- B AS 3959:2009: Construction of Buildings in bushfire-prone areas, Appendix F
- C ASTM D1761: Standard Test Method for Mechanical Fasteners in Wood
- D ASTM D1413: Standard Test Method for Wood Preservatives by Laboratory Soil Block Cultures
- E ASTM D198 -09: Standard Test Method of Static Tests of Lumber in Structural Sizes
- F ASTM D-7031-04: Standard Guide for Evaluating Mechanical and Physical Properties of Wood-Plastic Composite Products
- G ASTM D-7032-04: Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail systems
- H ASTM D 695: Standard Test Method of Compressive Properties of Rigid Plastics
- I ASTM D 696: Standard Test Method for Coefficient of Thermal Linear Expansion of Plastics

1.3 Design/Performance Requirements

A Structural Performance:

- a Deck: Uniform Load: 100 lbf/sq ft. (4788 Pa)
- b Treads of Stairs; Concentrated Load: 35910 Pa (750 lbf/sq. ft) and 3.175mm (1/8") with a concentrated load of 1.33 kN (300 lbf) on area of 25.8 sq. cm (4 sq. in.)

B Combustion Characteristics per AS 3959:2009

1.4 Submittals

- A Product Data: Indicate Sizes, profiles, surface style, and performance characteristics.
- B Samples: For each product specified, one sample, minimum size 101mm (4 inches), representing actual product, color, and finish.

1.5 Delivery, Storage, and Handling

- A Storage and Handling:
 - a Never dump Trex® materials when unloading.
 - b Store on a flat surface or with supports .61m (2 feet) on center
 - c Refer to Trex Installation Guide on trex.com for additional guidelines.

1.6 Warranty

- A Residential and Commercial: Limited Residential Warranty against material defects in workmanship and materials, and shall not split, splinter, rot or suffer structural damage from termites or fungal decay. The terms of such warranty shall be twenty-five (25) years from the date of original purchase for a residential purchaser, and ten (10) years from the date of original purchase for a commercial purchaser.
- B Fade and Stain (Trex Transcend® and Trex Enhance®): Trex Company, Inc. warrants to the original end-user purchaser that Trex Transcend decking or porch planks, or Trex Enhance decking under normal residential use and service conditions as follows;
 - a Fade Resistance: The Product shall not fade in color from light and weathering exposure as measure by color change of more than 5 Delta E (CIE) units.
 - a Stain Resistance: The Product shall be resistant to permanent staining resulting in spills of food and beverage items that would typically be present on a residential deck, or mold and mildew naturally occurring in the environment, provided that such substances are removed from the Product with soap and water or mild household cleaners after no more than one (1) week of exposure of the food or beverage to the surface or first appearance of the mold and mildew.

PART 2: PRODUCTS

2.1 Manufacturers

A Contract Documents are based on products by:
Trex Company, Inc.
160 Exeter Dr.
Winchester, VA 22603

B Substitutions: Not permitted under Division 01

2.1 Applications/Scope

A Wood/Plastic Composite Lumber;

a Material Description; Capped composite plank consisting of linear low density polyethylene (LLDPE) and wood flour as the core. A proprietary shell made of cohesive materials is on the top of the board. The product is extruded into sizes and shapes indicated with the following properties;

b Trex Transcend® and Trex Enhance®

- 25.4mm x 139.7mm
- Lengths – 3.66m, 4.88m, and 6.10m
- Colors;

Transcend – Tree House, Fire Pit, Gravel Path, Lava Rock, Rope Swing, Spiced Rum, Tiki Torch, Vintage Lantern

Enhance – Beach Dune, Clam Shell

- Specific Gravity – 1.05 g/cm³ when tested in accordance to ASTM D -792
- Friction Coefficient when tested in accordance with AS/NZS 4586:2004;

Transcend;

- a Appendix A, Wet pendulum = 28/Y
- b Appendix B, Dry pendulum = 0.45/F – Pass
- c Appendix A, B = Y
- d Appendix C wet barefoot ramp = 31 degrees/C
- e Appendix D oil-wet ramp = 15.1 degrees/R10

Enhance;

- a Appendix A, Wet pendulum = 30/Y
- b Appendix B, Dry pendulum = 0.45/F – Pass
- c Appendix A, B = Y
- d Appendix C wet barefoot ramp = 31 degrees/C
- e Appendix D oil-wet ramp = 17.4 degrees/R10

- Combustion Testing when tested in accordance with AS 3959:2004

Transcend®;

- a Avg heat release = 144.7 kW/m²
- a Max heat release = 437.2 kW/m²

Enhance®;

- a Avg. heat release = 140.6 kW/m²
- a Max heat release = 365.3 kW/m²

- Thermal Expansion Coefficient when tested in accordance with ASTM D 696;

Transcend and Enhance

- a Width – 8.94 x 10⁻⁵ cm/cm/C degrees
- a Length – 4.1 x 10⁻⁵ cm/cm/C degrees

- Resistance to Fungal Infestation when tested in accordance to ADMD 1413;

Transcend and Enhance = No decay

- Screw Retention when tested in accordance to ASTM D 1761(#8 screws)+;

Transcend and Enhance = 1377.25 N/m

- Flexural Properties when tested in accordance with ASTM D-4761 and ASTM D-198;

- a Modulus of Elasticity (MOE): 412,000 psi (2840.64 Mpa) – Ultimate Value. 200,000 psi (1378.95 Mpa) – Design Value.
- a Tensile Strength – 1562 psi (10.77 Mpa) – Ultimate Value. 500 psi (3.45 Mpa) – Design Value

2.3 Accessories

A Fasteners:

a Concealed Fasteners; Trex Hideaway® Universal Fastener

b Screws; No. 8, 63.5mm stainless steel or high quality coated screws designed for composite decking;

- Approved Trex screws include; Fastenmaster® Trapease® II Composite Screw*, Dexter™ Composite Screw**, DeckFast Cap-Tor® XD, HeadCote Cap-Tor XD***, C-Deck Exterior Star Drive Composite Deck Screw****, Phillips II Plus® Pozisquare*****, Fastenmaster Cortex Concealed Fasteners*

*FastenMaster® TrapEase® II and Cortex® are registered trademarks of OMG, Inc. ** Dexter® is a registered trademark of Simpson Strong-Tie Company, Inc. *** DeckFast® Cap-Tor® xd and HeadCote® CapTor® xd are registered trademarks of Starborn Industries Inc. ****C-Deck Exterior Star Drive Composite Deck Screw is a product of Screw Products Inc. *****Phillips II Plus® is a registered trademark of Phillips Fasteners LLC.

PART 3: EXECUTION

3.1 Examination

- A Install according to manufactures instructions. See trex.com for the most up-to-date installation instructions.
- B Cut, drill, and rout using carbide tipped blades
- C Pre-drill holes for face screws if less than 25.4mm (1") from ends of plank
- D **Do NOT use composite wood material for structural applications.**

3.2 Cleaning

- A Refer to trex.com for the most up-to-date cleaning recommendations.

MATERIAL SAFETY DATA SHEET

Date of issue: 31. 05. 2012
 Date of revision: 19. 12. 2012
 Version: 3

<http://www.msds-europe.com>

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

TREX® WOOD-POLYMER PRODUCTS

TREX TRANSCEND® DECKING PRODUCTS, Vintage Lantern, Gravel Path, Fire Pit, Tree House, Lava Rock, Spiced Rum, Rope Swing, Tiki Torch; TREX ENHANCE® DECKING PRODUCTS, Beach Dune, Clam Shell; TREX SELECT® DECKING PRODUCTS, Woodland Brown, Madeira, Winchester Grey, Saddle.

1.2. Relevant identified uses of the substance or mixture and uses advised against:

Wood-polymer products, for industrial use.

1.3. Details of the supplier of the safety data sheet:

TREX COMPANY, INC.
 245 Capitol Lane
 Winchester, VA 22602
 Tel.: + 1 800 289 8739

1.3.1. Responsible person: Kyle Lancaster
 E-mail: klancaster@trex.com

1.4. Emergency telephone number: + 1 800 289 8739

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation 1999/45/EC:

Not considered as hazardous mixture.

R phrases: -

S phrases: -

2.2. Label elements

No labeling required.

2.3. Other hazards

Dust can irritate nose, throat and respiratory tract and may cause mechanical irritation in the eyes. Repeated exposures to certain wood dusts can produce allergic skin and respiratory reactions including asthma and rhinitis. Inhalation of certain wood fibers can cause nasal cancer. Carbon black is a possible carcinogenic.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Mixture:

Description	CAS number:	EU number	REACH reg. nr.	Conc. (%)	Classification				
					REACH		CLP		
					Hazard symbol	R phrase	Hazard pict.	Hazard cat.	H phrase
Carbon black*	1333-86-4	215-609-9	-	< 1	-	-	-	-	-

* Substance classified by the manufacturer or substance which has no obligatory classification according to the EU regulations.

Further components: wood fiber dust: 50 – 60 %, polyethylene: 40-50 %.

Note: wood dust and carbon black are contained in a polyethylene matrix. Contains used thermoplastics and waste wood. Plastic obtained primarily from reclaimed/recycled grocery bags and stretch film, wood fiber is typically obtained from furniture makers and/or waste pellets. Standard product is approximately 40-50% thermoplastic and 50-60% wood fiber.

Date of issue: 31. 05. 2012
 Date of revision: 19. 12. 2012
 Version: 3

<http://www.msds-europe.com>

4. FIRST AID MEASURES

4.1. Description of first aid measures:

IN CASE OF INGESTION:

Measures:

- Not expected to be a problem when ingested.
- If uncomfortable, seek medical assistance.

IN CASE OF INHALATION:

Measures:

- If respiratory irritation, cough, shortness of breath, wheezing or chest tightness occurs after exposure to dust, remove from further exposure, seek immediate medical assistance and call for a physician.

IN CASE OF SKIN CONTACT:

Measures:

- Wash contact areas with soap and water.
- Launder contaminated clothing before re-use.

IN CASE OF EYE CONTACT:

Measures:

- Flush thoroughly with water.
- If irritation occurs, obtain medical help.

4.2. Most important symptoms and effects, both acute and delayed:

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media:

5.1.1. Suitable extinguishing media:

Water.

5.1.2. Unsuitable extinguishing media:

None known.

5.2. Special hazards arising from the substance or mixture:

Exposure to fire can generate toxic fumes. High dust levels may create potential for explosion.

Hazardous decomposition products: smoke, carbon monoxide, acetaldehyde, formaldehyde, formic acid, acetic acid.

5.3. Advice for firefighters:

Use water to keep fire exposed product cool. For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

6.1.1. For non-emergency personnel:

Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident.

6.1.2. For emergency responders:

None known.

6.2. Environmental precautions:

Dispose of spillage and waste (product/packaging) in accordance with all applicable environmental laws. Do not allow to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

6.3. Methods and material for containment and cleaning up:

When dusty conditions are created as a result of cutting or sawing, wet dust down then sweep or vacuum for disposal. Personnel performing cleanup must use protective equipment.

6.4. Reference to other sections:

For further and detailed information see section 8 and 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling:

Observe conventional hygiene precautions.

Technical measures:

TREX® WOOD-POLYMER LUMBER is not intended for load bearing or heavy structural applications. Please consult Trex® Wood-Polymer Lumber's code listing, NER-508, and company literature for proper usage. Trex® Wood-Polymer Lumber is heavier than most traditional lumber products, proper handling is required to prevent damage or injury. Do not burn in fireplace or use as firewood.

Use in well-ventilated area.

Precautions against fire and explosion:

No specific prescription.

7.2. Conditions for safe storage, including any incompatibilities:

Technical measures and storage condition:

Do not store in open or unlabelled containers. Store away from strong oxidizing agents or combustible material.

Follow all instructions on the label.

Date of issue: 31. 05. 2012
 Date of revision: 19. 12. 2012
 Version: 3

<http://www.msds-europe.com>

Incompatible materials: strong oxidizers.
 Packaging material: no specific prescription.

7.3. Specific end use(s):
 No specific instructions available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Exposure limit values: -

DNEL		Routes of exposure	Exposure frequency:	Remarks:
Worker	Consumer			
		Dermal	Short term (acute) Long term (repeated)	
		Inhalative	Short term (acute) Long term (repeated)	
		Oral	Short term (acute) Long term (repeated)	

PNEC			Exposure frequency:	Remarks:
Water	Soil	Air		
			Short term (single use) Long term (continuous)	
			Short term (single use) Long term (continuous)	
			Short term (single use) Long term (repeated)	

8.2. Exposure controls:

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

8.2.1 Appropriate engineering controls

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.
 Use in well-ventilated area.

Good personal hygiene practices should always be followed.

8.2.2. Individual protection measures, such as personal protective equipment:

1. Eye/face protection: safety glasses with side shields or goggles should be worn to protect against dust particles.
2. Skin protection:
 - a. Hand protection: no special equipment required.
 - b. Other: no special equipment required.
3. Respiratory protection: approved dust respirators must be used for dusty conditions or if breathing of dusts is likely.
4. Thermal hazard: none known.

8.2.3. Environmental exposure controls:

No specific prescription.

The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.

9. PHYSICAL AND CHEMICAL PROPERTIES:

9.1. Information on basic physical and chemical properties:

Parameter	Test method:	Remarks:
1. Appearance:		gray, red, brown solid
2. Odour:		odourless
3. Odour threshold:		no data available.
4. pH value:		no data available
5. Melting point/ freezing point:		> 110°C
6. Initial boiling point/boiling range:		no data available
7. Flash point:		> 370°C
8. Evaporation rate:		no data available
9. Flammability:		no data available
10. Upper/lower flammability or explosive limits:		no data available
11. Vapour pressure:		no data available
12. Relative density:		0,96
13. Solubility(ies):		in water: negligible

TREX COMPANY, INC.

3 / 6.

TREX® WOOD-POLYMER PRODUCTS

Date of issue: 31. 05. 2012
 Date of revision: 19. 12. 2012
 Version: 3

<http://www.msds-europe.com>

- 14. Partition coefficient: n-octanol/water: no data available
- 15. Self-ignition temperature: 395°C
- 16. Degradation temperature: no data available
- 17. Viscosity: no data available
- 18. Explosive properties: no data available
- 19. Oxidizing properties: no data available
- 9.2. Other information:
 No data available.

10. STABILITY AND REACTIVITY

- 10.1. Reactivity
 None known.
- 10.2. Chemical stability
 Stable.
- 10.3. Possibility of hazardous reactions:
 Hazardous polymerization will not occur.
- 10.4. Conditions to avoid:
 Heat, flame, build up of dusts.
- 10.5. Incompatible materials:
 Strong oxidizers.
- 10.6. Hazardous decomposition products:
 Smoke, carbon monoxide, acetaldehyde, formaldehyde, formic acid, acetic acid.

11. TOXICOLOGICAL INFORMATION

- 11.1. Information on toxicological effects
 Acute toxicity: none known.
 Irritation: none known.
 Corrosivity: none known.
 Sensitisation: none known.
 Repeated dose toxicity: none known.
 Carcenogenity: none known.
 Mutagenicity: none known.
 Reproduction toxicity: none known.
- 11.1.1. For substances subject to registration, brief summaries of the information derived from the test conducted:
 No data available.
- 11.1.2. Relevant toxicological properties of the hazardous substances:
 No data available.
- 11.1.3. Information on likely routes of exposure:
 ingestion, inhalation, skin and eye contact.
- 11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:
 No data available.
- 11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:
 No data available.
- 11.1.6. Interactive effects:
 No data available.
- 11.1.7. Absence of specific data:
 No information.
- 11.1.8. Other information:
 IARC has determined that there is sufficient evidence to classify wood fiber as a human carcinogen. IARC has classified carbon black as a possible human carcinogen based on animal data. When wood fiber and carbon black are incorporated into a polymer matrix exposure is virtually eliminated.

12. ECOLOGICAL INFORMATION

- 12.1. Toxicity:
 No data available.
- 12.2. Persistence and degradability
 No data available.
- 12.3. Bioaccumulation potential:
 No data available.
- 12.4. Mobility in soil
 No data available.
- 12.5. Results of PBT and vPvB assessment
 No data available.
- 12.6. Other adverse effects:
 No data available.

Date of issue: 31. 05. 2012
 Date of revision: 19. 12. 2012
 Version: 3

<http://www.msds-europe.com>

13. DISPOSAL CONSIDERATIONS

- 13.1. Waste treatment methods:
 Disposal according to the local regulations.
- 13.1.1. Information regarding the disposal of the product:
 Dispose of waste as normal refuse.
 During the disposal of the product, its residue and its packaging the national and local prescriptions should be observed. The EWC codes indicated below are only recommendations, but they may have to be changed due to special circumstances, in such cases new classification may be needed.
- 13.1.2. Information regarding the disposal of the packaging
 According to the consideration regarding the product.
- 13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:
 None known.
- 13.1.4. Sewage disposal:
 None known.
- 13.1.5. Special precautions for any recommended waste treatment:
 No data available.

14. TRANSPORT INFORMATION

Not dangerous good in sense of the transport regulations!

- 14.1. UN Number:
 -
- 14.2. UN proper shipping name:
 -
- 14.3. Transport hazard class(es):
 -
- 14.4. Packaging group
 -
- 14.5. Environmental hazard
 -
- 14.6. Special precautions for user
 -
- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
 -

15. REGULATORY INFORMATION

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:
 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

COMMISSION REGULATION (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures

DIRECTIVE 1999/45/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

- 15.2. Chemical safety assessment: -

16. OTHER INFORMATION

Information regarding the revision of the safety data sheet: -
 Full text of the abbreviations in the safety data sheet:
 DNEL: Derived no effect level. PNEC: Predicted no effect concentration. CMR effects: Carcinogenicity, Mutagenicity and reproduction toxicity. PBT: Persistent, bioaccumulative and toxic. n.d.: not defined. n.a.: Not applicable.
 Data sources: -
 Relevant R-Phrases (number and full text) of Section 2 and 3: -

TREX COMPANY, INC.

5 / 6.

TREX® WOOD-POLYMER PRODUCTS

Date of issue: 31. 05. 2012
Date of revision: 19. 12. 2012
Version: 3

<http://www.msds-europe.com>

Relevant H-Phrases (number and full text) of Section 2 and 3: -

Training instructions: -

Recommended restrictions on use (non-statutory recommendations by supplier): -

This safety data sheet had been prepared on the basis of information provided by the manufacturer. The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information. The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required. Since the conditions of the handling, the storage and the disposal of this product are beyond the control of the manufacturer, the distributor or the preparer of this SDS, no warranty, expressed or implied, regarding the product described in this SDS shall be created or inferred by any statement in this SDS. No responsibility is assumed regarding the accuracy, completeness or suitability of all or any of the information contained herein or the results to be obtained from the use thereof at the time of use. In no way shall the manufacturer, the distributor or the preparer of the be liable for any claims, losses or damages of third parties, personal injury, property damage, lost profits or any special, direct, indirect, incidental, consequential or exemplary damages resulting from the use of or reliance upon such information. Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product. It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

ICC-ES SAVE

(RECYCLED CONTENT CERTIFICATION)



Most Widely Accepted and Trusted

ICC-ES VAR Environmental Report

VAR-1011*

Reissued June 1, 2011

This report is subject to renewal June 1, 2013.

www.icc-es.org/ep | 1-800-423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

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.
 160 EXETER DRIVE
 WINCHESTER, VIRGINIA 22602
 (540) 542-6300
www.Trex.com
EVALUATION SUBJECT:
Trex Transcend™ Decking and Trex Transcend™ Fascia: 1x8 and 1x12
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 Bio-based 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)
- 2010 California Green Building Standards Code (CALGreen), Title 24, Part 11 (see Table 7 for details)

2.0 USES

Trex® Transcend is 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® 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 Transcend™ Decking and Trex Transcend™ Fascia: 1x8 and 1x12 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.]

*Revised December 2012

ICC-ES Verification of Attributes Reports are issued under the ICC-ES VAR Environmental Program. These reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



Copyright © 2012

Page 1 of 3

i.0 IDENTIFICATION

Trex products are identified with a stamp noting the manufacturer’s name (Trex) 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.

TABLE 1—RECYCLED CONTENT BY WEIGHT SUMMARY

PRODUCT NAME	RECYCLED MATERIALS	% PRE-CONSUMER RECYCLED CONTENT	% POST-CONSUMER RECYCLED CONTENT	% TOTAL RECYCLED CONTENT
Trex Transcend™ Decking Trex Transcend™ Fascia: 1x8 & 1x12	Wood	47.70	0	95.40
	Polyethylene	16.70	31.00	

TABLE 2—BIOBASED MATERIAL CONTENT SUMMARY

PRODUCT	MINIMUM % BIOBASED CONTENT	METHOD OF DETERMINATION
Trex Transcend™ Decking Trex Transcend™ Fascia: 1x8 & 1x12	40%	Calculation

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

PRODUCT	REPORT NUMBER
Trex Transcend™ Decking Trex Transcend™ Fascia: 1x8 and 1x12	ESR-3168

TABLES 4 THROUGH 7

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify for Points	Trex Transcend™ Decking Trex Transcend™ Fascia: 1x8 & 1x12
TABLE 4—SUMMARY OF AREAS OF ELIGIBILITY 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%; ≥ 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.	○
TABLE 5—SUMMARY OF AREAS OF 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 ELIGIBILITY WITH USGBC'S LEED 2009 FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS				
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 ELIGIBILITY WITH 2010 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.	○
○	= Eligible for points			
●	= Verified attribute			

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