

PHYSICAL AND MECHANICAL PROPERTIES FOR TREX TRANSCEND® AND TREX ENHANCE®



	TEST METHOD	VALUES	
Flame Spread (a)	ASTM E84	60 (Transcend) / 85 (Enhance)	
Typical Trex® Values for Coefficient of Thermal Expansion/Contraction (36" (91.4 cm) long samples)			
Thermal	Width	35.2 x 10 ⁻⁶ to 42.7 x 10 ⁻⁶ (inch/inch/°F) 644 x 10 ⁻⁶ to 776 x 10 ⁻⁶ (length/length/°C)	
	Length	16.1 x 10 ⁻⁶ to 19.2 x 10 ⁻⁶ (inch/inch/°F) 297 x 10 ⁻⁶ to 356 x 10 ⁻⁶ (length/length/°C)	
Moisture	Typical Trex Values for Long-Term Water Immersion (36"/91.4 cm long samples)	Typical Trex Values for Constant High Humidity (6"/15.2 cm long samples)	
	Width ~3%	~1%	
Nail Withdrawal	ASTM D1761	163 lbs/in (1.12 Mpa)	
Screw Withdrawal	ASTM D1761	558 lbs/in (3.85 Mpa)	
Fungus Resistance (White & Brown Rot)	ASTM D1413	Rating = No Decay	
Termite Resistance (c)	AWPAE1-72	Rating = 9.6	
		ULTIMATE (TYPICAL) VALUES	DESIGN VALUES
Compression Parallel (d)(e)	ASTM D198	1,588 psi (10.94 Mpa)	540 psi (3.72 Mpa)
Compression Perpendicular (d)(f)	ASTM D143	1,437 psi (9.90 Mpa)	540 psi (3.72 Mpa)
Bending Strength (d)	ASTM D198	3,280 psi (22.61 Mpa)	500 psi (3.45 Mpa)
Shear Strength (d)	ASTM D143	3,280 psi (22.61 Mpa)	500 psi (3.45 Mpa)
Modulus of Elasticity (d)	ASTM D4761	412,000 psi (2840.64 Mpa)	200,000 psi (1378.95 Mpa)
Modulus of Rupture (d)	ASTM D4761	3,800 psi (26.20 Mpa)	1,600 psi (11.03 Mpa)
Thermal Conductivity	ASTM C177	1.57 BTU-in/hr-ft @85°F (.0023 W/cm/°C)	

NOTES:

(a) Corresponding Smoke Developed Index is 300.

(b) Values shown are for reference only. These values should not be used to calculate gapping for Trex. Follow Trex installation literature for proper width-to-width and end-to-end gapping information.

(c) Material weight loss was 0%.

(d) Ultimate strength values are not meant for design analysis. Testing performed on a 1" x 5.5" (2.5 cm x 14 cm) cross section. Design values are for temperatures up to 130°F (54°C).

(e) Compressive strength parallel to the length.

(f) Compressive strength perpendicular to length.