

Method	Value (Imperial)	Value (Metric)	Note
Maximum Allowable Uniform Live Load-Joist Mount			
ICC-ES AC174 ASTM D7032 ASTM D6109	100 lb/ft ²	4.79kPa or 4.79 kN/m ²	1 x 5.4 (2.54 cm x 13.72 cm) on 16 inch (40.64 cm) center (Vantage Collection)
Loads based on flexural stress of 250 lbs/in ² (1,723.7 kN/m ² , 1,723.7 kPa), modulus of elasticity of 100,000 lbs/in ² (689.5 MN/m ² , 689.5MPa)			
Flame Spread, Substrate			
ASTM E84	110	Class "C" or Class III. Within the range of wood species commonly used for joists.	
Smoke Developed Index, Substrate			
ASTM E84	350	Within the range expected for solid wood.	
Self Ignition, Substrate			
ASTM D1929	741°F	394°C	
Flash Ignition, Substrate			
ASTM D1929	729°F	387°C	
Slip Index			
ASTM F1679-04	0.52/0.54	-----	Static Dry Parallel/Perpendicular to grain
ASTM F1679-04	0.56/0.53	-----	Static Wet Parallel/Perpendicular to grain
Modulus of Elasticity, Substrate			
ASTM D7032 ICC-ES AC174	100,000 lbs/in ²	689.5 Mpa or 689.5 MN/m ²	1. Value used to compute maximum allowable uniform live load for decking and railing applications. 2. Includes deductions for loss in stiffness due to temperature, UV exposure, and freeze-thaw cycles per ASTM D7032. 3. This value is given for informational purposes only and is NOT presented as a general design value.
ASTM D7032	317,000 lbs/in ²	2,185.6 Mpa or 2,185.6 MN/m ²	Average value at ambient temperature. Not adjusted for temperature, freeze-thaw, UV exposure etc.
Modulus of Rupture, Substrate			
ASTM D7032	2,500 lbs/in ²	17.2 Mpa or 17.2 MN/m ²	Average value at ambient temperature. Not adjusted for temperature, freeze-thaw, UV exposure etc.
Flexural Stress			
ASTM D7032 ICC-ES AC174	250 lbs/in ²	1.72 Mpa or 1.72 MN/m ²	1. Value used to compute maximum allowable uniform live load for decking and railing applications. 2. Includes deductions for loss in stiffness due to temperature, UV exposure, and freeze-thaw cycles per ASTM D7032. 3. This value is given for informational purposes only and is NOT presented as a general design value.
Screw Withdrawl			
ASTM D7032	595 lbf	2.65 kN	#7 x 2¼ finish head through thickest part of board 120 lbs/in (210 N/cm) of thread penetration with safety factor of 5.
Compressive Strength			
ASTM D1621	962 lbs/in ²	6,632.8 kPa or 6,632.8 kN/m ²	5/4 x 6 engineered deck board, flatwise, perpendicular to grain
Compressive Modulus			
ASTM D1621	21,926 lbs/in ²	151.2 Mpa or 151.2 MN/m ²	5/4 x 6 engineered deck board, flatwise, perpendicular to grain
Compressive Strength			
ASTM D1621	2,828 lbs/in ²	19,498 kPa or 19,498 kN/m ²	Solid cube, 1.5" nominal, AERT composite, perpendicular to grain
Compressive Modulus			
ASTM D1621	61,209 lbs/in ²	422.0 Mpa or 422.0 MN/m ²	Solid cube, 1.5" nominal, AERT composite, perpendicular to grain
Thermal Conductivity			
ASTM C518-02	1.37 Btu-in/hr-ft ² -°F	0.198 W/m ² K	Specimen emissivity 0.90
Weight Per Linear Foot			
	2.66 lbs/ft	3.96 kg/m	
Thermal Expansion, 1 x 5.4			
ASTM D1037	2.08 x 10 ⁻⁵ in/in/°F	3.74 x 10 ⁻⁵ cm/cm/°C	Length
	5.25 x 10 ⁻⁵ in/in/°F	9.45 x 10 ⁻⁵ cm/cm/°C	Width
	1.09 x 10 ⁻⁴ in/in/°F	1.97 x 10 ⁻⁴ cm/cm/°C	Depth
Resistance to Termite Attack			
AWPA E1-09		Rating = 9	High resistance to attack by Formosan termite (<i>Coptotermes formosanus</i>)
Resistance Decay (Brown and White Rot)			
ASTM D2017			Very resistant

Revision - March 3, 2014

MoistureShield® products are covered by ESR-2388 and VAR-1015 from the International Code Council - Evaluation Service.