



TECHNICAL SPECIFICATIONS

Overall Thickness	7.5mm
Wear Layer	22mil (0.55mm)
Finish	Scratch Shield Max
Installation	Floating (Tight Lock)
Bevel	Painted Bevel On 4 Sides
GridTech	Yes
Backing Type And Thickness	1mm Cork
Residential Warranty	Lifetime Limited
Commercial Warranty	15 Year Limited

PROPERTIES

ASTM D6007 - Emissions	Compliant
ISO 16000 - Emissions	Compliant
Spectrometry, Chromatography - Emissions	Compliant
CPSC-CH-C-1001-09.4 - Ortho-Phthalates	Compliant
ASTM F963 - Heavy Metal	Compliant
ASTM F1914 - Surface Integrity	Compliant
ASTM F2199/ISO 23999 - Dimensional Stability	Compliant
ISO 24337 - Length	Compliant
ISO 24337 - Width	Compliant
ASTM F387 - Total Thickness	Compliant
ISO 24337 - Openings	Compliant
ISO 24337 - Height Difference	Compliant
Planks: ASTM F2055 - Squareness	Compliant
Tiles: ASTM F2421 - Squareness	Compliant
ISO 24337 - Flatness	Compliant
ASTM F1914 - Residual Indentation	Compliant
ASTM F970 - Residual Indentation	Compliant
ASTM F925 - Resistance To Chemicals	Compliant
ASTM F1515 - Resistance To Light	Compliant
ASTM F1514 - Resistance To Heat	Compliant
ASTM F3261 - Thickness Swell	Compliant
ASTM F1914 - Residual Indentation	Compliant
ASTM E413-16 - Airborne Sound Transmission	69*
ASTM E989-6 - Impact Sound Transmission	69*
ASTM E2190-16 - Reducing Impact Sound - Transmission	25*
ASTM C1028 - Slip Resistance (SCOF)	Compliant
ASTM E648 - Critical Radiantflux	Compliant



Version: USA

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Bevel Lock	Painted bevel Tight lock		Class of use (ISO 10582)	Commercial Floating
Layer	Thickness (mm)	Thickness (mil)	Type	
Top layer	1.8	71	Wear layer with a slip-resistant, anti-microbial ceramic bead enhanced UV finish	
Middle layer	0.8	31	Acoustic layer	
Core	3.9	154	Waterproof thermoplastic composite	
Backing layer	1.0	39	Cork	
Total	7.5	295		

CERTIFICATIONS & CHEMICAL PROPERTIES

Norm	Item	Test method	Requirement	Result
EN 14041	Emissions	EN 717-1	≤ 0.124 mg/m3	E1
Decret No2011-321	Emissions	ISO 16000	TVOC<1000µg/m3	VOC A+
GreenGuard Gold	Emissions	Spectrometry, chromatography	TVOC≤220µg	Certified
Prop 65	Orthophthalates	Spectrometry	ND	Compliant
CPSIA	Lead	CPSC-CH-E-1002-08	≤ 90ppm	Compliant
EU REACH Regulation	PAHs	Spectrometry, chromatography	<1mg/kg	Compliant
	SVHC	Spectrometry, chromatography	≤ 0.1% (w/w)	Compliant
EN 14041	CE Certification	Multiple	Multiple	Compliant

PHYSICAL PROPERTIES

Norm	Item	Test Method	Requirement	Result
ASTM F3261	Surface integrity	ASTM F1914	No puncture	Compliant
	Dimensional stability	ASTM F2199/ISO 23999	ΔW/ΔL ≤ 0.2% (commercial)	Compliant
	Curling	ASTM F2199/ISO 23999	≤2mm	Compliant
	Length tolerance	ISO 24337	±2 mm	Compliant
	Width tolerance	ISO 24337	± 0.4mm	Compliant
	Thickness tolerance	ASTM F387	±0.13mm (no backing); ±0.20mm (with backing)	Compliant
	Squareness	ISO 24337	0.25mm	Compliant
	Flatness	ISO 24337	Length: ≤ 0.50% (concave) ≤ 1.0% (convex) Width: ≤ 0.15%(concave) ≤ 0.15% (convex)	Compliant
	Residual indentation	ASTM F1914	≤0.18mm (70lbs/34kg)	Compliant
	Resistance to chemicals	ASTM F925	Slight change only	Compliant
	Resistance to heat	ASTM F1515	ΔE ≤8	Compliant
	Resistance to light	ASTM F1514	ΔE ≤8	Compliant
Thickness swelling	ASTM F3261	≤2 % swell – no attached back ≤5 % swell – with attached back	Compliant	
ASTM F1700*	Residual indentation	ASTM F1914	≤8% (140 lbs/63.5kg)	Compliant
ISO 10582	Dimensional stability	ASTM F2199	ΔW/ΔL ≤ 0.16%	Compliant
	Residual indentation	ISO 24343-1	≤ 0.1mm	Compliant
	Resistance to light	ISO 105-802:2014	≥ Grade 6	Compliant
NALFA LF 01-2011	Lockline strenth	ISO 10582 Aooendix D	≥1.5KN/m(only for commercial)	Compliant
	Castor chair	ISO 4918	Only slight change	Compliant
	Resistance to chemicals	NALFA LF 01-2011 3.4	Slight change only	Compliant
	Impact resistance	NALFA LF 01-2011 3.5	≥ 1400mm	Compliant
	Impact resistance	NALFA LF 01-2011 3.6	≥ 500mm	Compliant
EN 14041	Thermal resistance (R)	EN 12667/ASTM C518	> 0.15m2.K/W	Compliant
	Slipperiness	EN 13893	≥ 0.3	Compliant
	Reaction to fire	EN 13501-1	NA	Class Bfl –S1
Others	Density	ISO 23996	NA	Around 1550kg/m3
	Airborne sound transmission	ASTM E413-16	≥50	69
	Impact sound transmission	ASTM E989-6	≥50	69
	Reducing impact sound transmission	ASTM E2190-16	NA	25
	Slipperiness	DIN 51130	NA	R10
	Fire resistance (CHF)	ASTM E648/NFPA 253	≥0.45	Class 1

*Note: Only tests specific to ASTM F1700 are listed here; for tests and requirements similar to ASTM F3261, please refer to the tests under that standard

LEED SCORECARD

LEED was developed to address all buildings everywhere, regardless of where they are in their life cycle. From hospitals to data centers, from historical buildings to those still in the design phase, there is a LEED certification program for every building. Our products will contribute value to a building's LEED v4 Scorecard in the following LEED certification program categories recognized by the USGBC as per following

LEED Programme Certification	Category	Credit Title	LEED Points Attainable	Credit Description	How our product contributes to obtaining LEED points
 <p>BD+C Building Design and Construction</p>	Indoor Environmental Quality	Credit 1: Enhanced Indoor Air Quality Strategies – Option 2 Additional Enhanced IAQ Strategie - option D	1 point ID&C, 2 points Retail CI	To reduce concentrations of chemical that can damage air quality, human health, productivity, and the environment.	1. Formaldehyde emission are less than 0.05mg/m ³ , TVOCs are less than 0.5mg/m ³ . 2. The product is GreenGuard Gold certified.
		Credit 2: Low-Emitting Materials – Option1 Flooring	1 point		1. VOC emission are less than 0.5mg/m ³ . 2. The products is GreenGuard Gold certified.
		Credit 4: Indoor Air Quality Assessment - Option 2 Air Testing	2 points	To establish better quality indoor air in the building	1. Formaldehyde emission are less than 0.05mg/m ³ , TVOCs are less than 0.5mg/m ³ . 2. The product is GreenGuard Gold certified.
		Credit 9: Acoustic Performance	2 points	To provide effective acoustic design	The product has a high acoustic performance. IIC and STC test report are available on request
	Material & Resource	Credit 3: sourcing of raw material - Recycled Content – Option 2	1 point	Increase demand for building products that incorporate recycled content materials	The products has a Natural Cork Underlay pre attached. Natural cork underlay contains at least 95% pre-consumer content
		Credit 4: Material ingredient– Option 2 Credit 6 – PBT source reduction: lead, cadmium and copper	1 point 1 point	Minimize the use and generation of harmful substances To reduce the release of persistent, bioaccumulative, and toxic chemicals	The product is 100% REACH compliant The product is free of lead, cadmium and copper
 <p>O+M Building Operations and Maintenance</p>	Material & Resource	Credit 3: Purchasing - Facility maintenance and renovation	1 point	To reduce the environmental harm from materials used in building renovations	1. The product is 100% REACH compliant 2. Formaldehyde emission are less than 0.05mg/m ³ , TVOCs are less than 0.5mg/m ³ . 3. Test report according to ISO 16000 is available on request. 3. The product is GreenGuard Gold certified.
 <p>HOMES</p> <p>Homes</p>	Indoor Environmental Quality	Credit 2: Contaminant Control – Option 4 Air Testing	1 point	Demonstrate that contaminants do not exceed concentration levels listed	The products is GreenGuard Gold certified.
		Credit 7: Low-Emitting Materials	0.5 point	To reduce occupants’ exposure to airborne chemical contaminants	The product is GreenGuard Gold certified and meet the requirements of CA Section 01350. The product is made with ULEF or non-added formaldehyde material
	Material & Resource	Prerequisite – Durability management	0 point (Prerequisite)	To promote durability and performance of the building	The product is water resistant
 <p>ID+C Interior Design and Construction</p>	Indoor Environmental Quality	Credit 1: Enhanced Indoor Air Quality Strategies – Option 2 Additional Enhanced IAQ Strategie - option D	1 point ID&C, 2 points Retail CI	To reduce concentrations of chemical contaminants that can damage air quality, human health, productivity, and the environment.	1. Formaldehyde emission are less than 0.05mg/m ³ , TVOCs are less than 0.5mg/m ³ . 2. The product is GreenGuard Gold certified.
		Credit 2: Low-Emitting Materials – Option1 Flooring	1 point		1. VOC emission are less than 0.5mg/m ³ . 2. The products is GreenGuard Gold certified.
		Credit 4: Indoor Air Quality Assessment - Option 2 Air Testing	2 points	To establish better quality indoor air in the building	1. Formaldehyde emission are less than 0.05mg/m ³ , TVOCs are less than 0.5mg/m ³ . 2. The product is GreenGuard Gold certified.
	Material & Resource	Credit 9: Acoustic Performance	2 points	To provide workspaces and classrooms effective acoustic design	The product has a high acoustic performance. IIC and STC test report are available on request
		Credit 4: Material ingredient– Option 2	1 point	Minimize the use and generation of harmful substances	The product is 100% REACH compliant

WELL SCORECARD

The WELL Building Standard is founded on the understanding that facets of our environment interact with personal, genetic and behavioral factors to shape our overall health and well-being. By compiling leading practices in building design and management and referencing existing standards and best practice guidelines set by governmental and professional organizations, WELL works to harmonize and clarify existing thresholds and requirements.

Facet	Feature	Part	Requirements	Concept score	How our product contribute to obtain WELL level certification	
AIR	01. Air quality standards	1. Standards For Volatile Substances	The following conditions are met: a. Formaldehyde levels less than 27ppb (0.027ppm)	PRECONDITION	a. Formaldehyde emission are less than 0.05mg/m ³ .	
			b. Total volatile organic compounds		b. The total volatile organic compounds are less than 0.5mg/m ³ .	
	04. VOC Reduction	1. Interior Paints and Coatings	The VOC limits of newly applied paints and coating meet one of the following requirements: a. 100% of installed products meet California Air Resources Board (CARB) 2007, Suggested Control Measure (SCM) for Architectural Coatings, or South Coast Air Quality Management District (SCAQMD) Rule 1113, effective June 3, 2011 for VOC content.	PRECONDITION	a. The VOC limits for California Air Resources Board (CARB) are less than 0.11ppm. b. Measured Concentration of Total Volatile Organic Compounds (TVOC): Less than/equal to 0.5 mg/m ³ (in compliance with CDPH/EHLB Standard Method v1.1-2010).	
			b. At minimum 90%, by volume, meet		The product is GreenGuard Gold certified	
	11. Fundamental Material Safety	1. Asbestos and Lead Restriction	The VOC emissions of all newly installed flooring must meet all limits set by the following, as applicable: a. California Department of Public Health (CDPH) Standard Method v1.1-	PRECONDITION	Conforms to the CDPH/EHLB Standard Method v1.1-2010 (California Section 01350), effective January 1, 2012, for the school classroom and private office parameters when modeled as Flooring.	
			All newly-installed building materials meet the following materials composition requirements: a. No asbestos. b. Not more than 100 ppm (by		a. No asbestos b. The product contain less than 100 ppm.	
	25. Toxic Material Reduction	2. Flame Retardant Limitation	For repair, renovation or painting on buildings constructed prior to any applicable laws banning or restricting lead paint, lead evaluation and	PRECONDITION	The product contain less than 90 ppm.	
			To reduce hazards in buildings constructed prior to any applicable laws banning or restricting asbestos, the following testing, evaluation and	PRECONDITION	The product contain less than 90 ppm.	
	Comfort	74. Exterior Noise Intrusion	Part 1. Sound Pressure Level	Halogenated flame retardants are limited in the following components to 0.01% (100 ppm) to the extent allowable by local code: a. Window and waterproofing membranes, door and window frames and siding. b. Flooring, ceiling tiles and wall coverings. c. Piping and electrical cables, conduits and junction boxes. d. Sound and thermal insulation.	OPTIMIZATION	The product don't contain halogenated flame retardants
				3. Phthalate (Plasticizers) Limitation	Unhalogenated flame retardants (DEHP, DBP, BBP, DINP, DIDP or DNOP (often found in polyvinyl chloride [PVC]) are limited in the following components to 0.01% (100 ppm): a. Flooring, including resilient and hard surface flooring and carpet. b. Wall coverings, window blinds and shades, shower curtains, furniture and upholstery. c. Plumbing pipes and moisture	OPTIMIZATION
5. Urea-Formaldehyde Restriction				Urea-formaldehyde presence is limited in the following components to 100 ppm: a. Furniture or any composite wood products. b. Laminating adhesives and resins.	OPTIMIZATION	The product contains urea-formaldehyde less than 100ppm.
Comfort	79. Internally Generated Noise	Part 1. Sound Masking Limits	Each regularly occupied space meets the following sound pressure level as measured when the space and adjacent spaces are unoccupied, but within 1 hour of normal business hours: a. Average sound pressure level from	PRECONDITION	1. The product has IIC = 69 according to the standard ASTM E492-09 2. The product has STC = 69 according to the standard ASTM E90-09	
			If sound masking systems are used, sound levels fall within the following range, when measured from the nearest workspace: a. Open workspaces: 45 - 48 dBA.	OPTIMIZATION	1. The product has IIC = 69 according to the standard ASTM E492-09 2. The product has STC = 69 according to the standard ASTM E90-09	