

TECHNICAL SPECIFICATIONS

Product type	SPC (Rigid LVT)
Overall thickness	5.0mm
Wear layer	0.55mm
Finish	Anti-microbial NaturTrend Finish

Installation	Floating (Tight Lock)
Bevel	Painted bevel on 4 sides
Backing type and thickness	1mm Cork

Domestic	23 Heavy
Domestic Warranty	Lifetime Limited

Commercial	33 Heavy
Commercial Warranty	15 Years Limited

CERTIFICATIONS

CE Mark	Certificate
UKCA Mark	Certificate
IAC Gold	Certificate

GreenGuard Gold	Certificate
Product Health Declaration	Platinum level
Assure	Certificate

CHEMICAL PROPERTIES


Norm	Item	Test Method	Requirement	Result
EN 14041	Emissions	EN 717-1	≤0.124mg/m ³	Compliant
Decret No.2011-321 CDPH	Emissions	ISO 16000	VOC A+ (TVOC<1000µg/m ³)	Compliant
CPSIA & Prop 65	Ortho-Phthalates	Spectrometry, chromatography	TVOC ≤220µg/m ³	Compliant
REACH	SVHC	CPSC-CH-C-1001-09.4	N.D.	Compliant
		Spectrometry, chromatography	≤0.1%	Compliant

PHYSICAL PROPERTIES

Norm	Item	Test Method	Requirement	Result
ISO 10582	Dimensional stability (6hrs at 80°C)	ISO23999	ΔW/ΔL ≤0.15%	Compliant
		ISO23999	Curling: ≤1mm	Compliant
	Length	ISO24342	≤0.15% of nominal L up to max 0.5mm	Compliant
		ISO24342	≤0.1% of nominal L up to max 0.5mm	Compliant
	Width	ISO 24346	+0.13mm/-0.1mm	Compliant
		ISO 24342	≤0.25mm/≤400mm ≤0.35mm/≥400mm	Compliant
	Flatness	ISO 10582 Appendix B	Length: ≤0.50% (concave) / ≤1.0% (convex)	Compliant
			Width: ≤0.10%(concave) / ≤0.15% (convex)	
	Openings	ISO 10582 Appendix C	Average ≤0.15mm / Max ≤0.2mm	Compliant
	Height difference	ISO 10582 Appendix C	Average ≤0.1mm / Max ≤0.15mm	Compliant
	Residual indentation	ISO 24343-1	≤0.1mm	Compliant
	Castor chair	ISO 4918	Heavy Commercial 25,000R	Compliant
	Light fatness (Blue wool)	ISO 105-B02:2014 Method 3A	≥Grade 6	Compliant
	Locking strength	ISO 10582 Appendix D	≥1.5 KN/m	Compliant
	Impact resistance	EN 13329 Annex A	≥1600mm	Compliant
	Martindale (Gloss retantion)	EN 16094	≤MSR-A2	Compliant
Martindale (Micro-scratch)	EN 16094	≤MSR-B2	Compliant	
Furniture leg	EN 424	No visible damage	Compliant	
Resistance to staning	EN 438-2	Group 1 and 2: Grade 5	Compliant	
		Group 3: Grade 4		
Swelling	ISO 24336	≤12%	Compliant	
Thermal Resistance (R)	EN 12667/ASTM C518	NA	Compliant	
Slipperiness	EN 13893	≥0.3	Compliant	
EN 14041	Reaction to fire	EN 13501-1	Class Bfl -S1	Compliant
		DIN 51130	≥R9	Compliant
OTHERS	Airborne sound transmission	ISO 10140-2	N/A	67 dB
		ISO 10140-3	N/A	42 dB
OTHERS	Impact sound transmission - Reduction	ISO 10140-1	N/A	18 dB
		EN423	Not affected	Compliant

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
 Building Design and Construction	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/m3, TVOCs are less than 0.5mg/m3. 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. Rw and Ln,w test report are available on request
Material & Resource	Credit 4: Material ingredient– Option 2	1 point	Minimize the use and generation of harmful substances	The product is 100% REACH compliant
	Credit 6 – PBT source reduction: lead, cadmium and copper	1 point	To reduce the release of persistent, bioaccumulative, and toxic chemicals	The product is free of lead, cadmium and copper
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/m3, TVOCs are less than 0.5mg/m3. 3. Test report according to ISO 16000 is available on request. 3. The product is GreenGuard Gold certified.
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
Indoor Environmental Quality	Credit 1: Enhanced Indoor Air Quality Strategies – Option 2 Additional Enhanced IAQ Strategies - 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/m3, TVOCs are less than 0.5mg/m3. 2. The product is GreenGuard Gold certified.
	Credit 2: Low-Emitting Materials – Option1 Flooring	1 point		1. VOC emission are less than 0.5mg/m3. 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/m3, TVOCs are less than 0.5mg/m3. 2. The product is GreenGuard Gold certified.
	Credit 9: Acoustic Performance	2 points	To provide workspaces and classrooms effective acoustic design	The product has a high acoustic performance. Rw and Ln,w test report are available on request
Material & Resource	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) b. Total volatile organic compounds less than 500ug/m3 (0.5mg/m3)	PRECONDITION	a. Formaldehyde emission are less than 0.05mg/m3. b. The total volatile organic compounds are less than 0.5mg/m3.
		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. b. At minimum 90%, by volume, meet the California Department of Public Health (CDPH) Standard Method v1.1-2010 for VOC emissions	PRECONDITION
		3. Flooring	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 v1.1-2010.	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. The product is GreenGuard Gold certified

11. Fundamental Material Safety	1. Asbestos and Lead Restriction	All newly-installed building materials meet the following materials composition requirements: a. No asbestos. b. Not more than 100 ppm (by weight) added lead.	PRECONDITION	a. No asbestos b. The product contain less than 100 ppm.	
	2. Lead Abatement	For repair, renovation or painting on buildings constructed prior to any applicable laws banning or restricting lead paint, lead evaluation and abatement.	PRECONDITION	The product contain less than 90 ppm.	
	3. Asbestos Abatement	To reduce hazards in buildings constructed prior to any applicable laws banning or restricting asbestos, the following testing, evaluation and abatement.	PRECONDITION	The product contain less than 90 ppm.	
	25. Toxic Material Reduction	2. Flame Retardant Limitation	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. e. Upholstered furniture and furnishings, textiles and fabrics.	OPTIMIZATION	The product don't contain halogenated flame retardants
		3. Phthalate (Plasticizers) Limitation	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 barriers.	OPTIMIZATION	In accordance with US Consumer Product Safety Improvement Act 2008 (CPSIA) (H.R.4040) Title I, Section 108 & California Proposition 65 & Annex XV II item 51&52 of the REACH Regulation (EC) No. 1907/2006 and amendment No. 552/2009, the product contains less than 100ppm.
		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. c. Thermal insulation.	OPTIMIZATION	The product contains urea-formaldehyde less than 100ppm.
Comfort	74. Exterior Noise Intrusion	Part 1. Sound Pressure Level Each regularly occupied space meets the following sound pressure level as mesured when the space and adjacent spaces are unoccupied, but within 1 hour of normal business hours: a. Average sound pressure level from outside noise intrusion does not exceed 50 dBA.	PRECONDITION	1. The product has Lnw = 42dB according to the standard ISO 10140-3 2. The product has Rw = 67dB according to the standard ISO 10140-2	
	79. Internally Generated Noise	Part 1. Sound Masking Limits 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. b. Enclosed offices: 40 - 42 dBA	OPTIMIZATION	1. The product has Lnw = 42dB according to the standard ISO 10140-3 2. The product has Rw = 67dB according to the standard ISO 10140-2	

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