

# Technical Specification

<b>Product Type</b>	Eco Flooring	<b>Class of Use (EN 16511)</b>	23 Heavy Domestic
<b>Overall Thickness</b>	10 mm (incl 2mm Cork)	<b>Class of Use (EN 16511)</b>	33 Heavy Commercial
<b>Top Layer</b>	0.55 mm wear layer equivalent	<b>CE Marking</b>	Certified
<b>Size</b>	236 x 1830 mm	<b>IAC Gold</b>	Certified
<b>Packing</b>	6 pcs (2.59 sqm)/box	<b>GreenGuard Gold</b>	Certified

## CERTIFICATIONS & CHEMICAL PROPERTIES

Norm	Item	Test Method	Requirement	Result
EN 14041	Emissions	EN 717-1	$\leq 0.12 \text{ mg/m}^3$	✓
Decret No.2011-321	Emissions	ISO 16000	VOC A+ (TVOC $< 1000 \mu\text{g/m}^3$ )	✓
CDPH	Emissions	Spectrometry, chromatography	TVOC $\leq 220 \mu\text{g/m}^3$	✓
CPSIA & Prop 65	Ortho-Phthalates	CPSC-CH-C-1001-09.4	N.D.	✓
REACH	SVHC	Spectrometry, chromatography	$\leq 0.1\%$	✓

## PHYSICAL PROPERTIES

Norm	Item	Test Method	Requirement	Result	
EN 16511	Thickness	EN 17539	$\Delta T_{ave} \leq 0.50 \text{ mm}$	✓	
	Length	EN 17539	$ \leq 1500 \text{ mm}: \Delta  \leq 0.50 \text{ mm}$ $ \leq 500 \text{ mm}: \Delta  \leq 0.30 \text{ mm/m}$	✓	
	Width	EN 17539	$\Delta W_{ave} \leq 0.10 \text{ mm}$	✓	
	Squareness	EN 17539	$\leq 0.20 \text{ mm}$	✓	
	Straightness	EN 17539	$\leq 0.30 \text{ mm/m}$	✓	
	Flatness	EN 17539	Width: $\leq 0.20\%$ (concave), $\leq 0.20\%$ (convex) Length: $\leq 0.50\%$ (concave), $\leq 1.00\%$ (convex)	✓	
	Opening	EN 17539	$O_{ave} \leq 0.15 \text{ mm}$	✓	
	Height Difference	EN 17539	$H_{ave} \leq 0.10 \text{ mm}$	✓	
	Light Fastness	ISO 105-B02:2014 procedure 3	$\geq 6$	✓	
	Dimensional Stability	ISO 23999	$\leq 0.15\%$	✓	
	Curling	ISO 23999	$\leq 2 \text{ mm}$	✓	
	Wear Resistance	ISO 24338 Procedure A	$\geq 4000 \text{ cycles}$	✓	
	Impact Resistance-Big Ball	EN 13329	$\geq 1600 \text{ mm}$	✓	
	Micro-scratch Resistance	EN 16094 Procedure A	$\leq \text{MSR-A2}$	✓	
	Castor Chair	EN ISO 4918	25000 cycles	✓	
	Effect of Furniture Leg	EN ISO 16581	No visible damage	✓	
	Residual Indentation	EN ISO 24343-1	$\leq 0.20 \text{ mm}$	✓	
	Resistance to Staining	EN 438-2	Group 1 & 2: grade 5, Group 3: grade 4	✓	
	Swelling	ISO 24336	$\leq 12\%$	✓	
	Locking Strength	ISO 24334	Long side $\geq 1.0 \text{ KN/m}$ Short side $\geq 3.5 \text{ KN/m}$	✓	
	EN 14041	Reaction to Fire	EN 13501-1	Bfl-s1	✓
		Thermal Resistance (R)	EN 12664/ASTM C518	NA	✓
Thermal Conductivity		EN 12664/ASTM C518	NA	✓	
Slipperiness		EN 13893	$\geq 0.3$	✓	
Others	Slip Resistance (SCOF)	ASTM C1028	$\geq 0.5$	✓	
	Slip Resistance (DCOF)	ANSI/NFSI B101.3-2012	$\geq 0.4$	✓	
	Critical Radiantflux	ASTM E648	Class 1 ( $> 0.45 \text{ W/cm}^2$ )	✓	
	Smoke Density	ASTM E662	$< 450$	✓	
	NALFA Surface Swell (T-seam)	NAFLA	$\leq \text{Grade 2}$	✓	
	Thickness Swell	ASTM F3261	Max 5% swell - with attached back	✓	
	Airborne Sound Transmission	ISO 10140-2	N/A	67 dB*	
	Impact Sound Transmission	ISO 10140-3	N/A	42 dB*	
	Impact Sound Transmission (Reduction)	ISO 10140-1	N/A	17 dB	
	Impact Sound Transmission (STC)	ASTM E413-16	$\geq 50$	68*	
	Impact Sound Transmission (IIC)	ASTM E989-6	$\geq 50$	67*	
	Reducing Impact Sound (Transmission ( $\Delta$ IIC))	ASTM E2190-16	NA	20	

\* The structure for sound performance test: 150 mm thick concrete with 300 mm cavity with 12 mm gypsum boards and 50 mm thick glass wool.  
Disclaimer: The sound test results were achieved using a 6 mm (overall thickness) product and can only be used for reference.