





izes | 120x278 cm 47 /4"x109 /2" | 120x120 cm 47 /4"x47 /4" | 75x150 cm 29 /2"x59" | 75x75 cm 29 /2"x29 /2" | 60x120 cm 23%"x47 /4" | 60x60 cm 23%"x23%" | 37,5x75 cm 14¾"x29 /2" | 37,5x75 cm 14¾"x

		Requisites for nominal size N			Lims					
			Test method	7 cm ≤ N < 15 cm	7 cm ≤ N < 15 cm N ≥ 15 cm					
		Technical features		(mm)	(%)	(mm)	rectified 6mm 120x278 cm	Matte rectified 9mm	Grip rectified	Outdoor rectified
Regularity features		Length and width		± 0,9 (*) Non-rect. ± 0,4 (*) Rect.	± 0,6 (*) Non-rect. ± 0,3 (*) Rect.	± 2,0 (*) Non-rect. ± 1,0 (*) Rect.	Suitable for	Suitable for	Suitable for	Suitable for
	( ST 12)	Thickness	ISO 10545-2	± 0,5 (**)	± 5 (**)	Suitable for	Suitable for	Suitable for	Suitable for	
	(A) (A)	Straightness of sides		± 0,8 (***) Non-rect. ± 0,4 (***) Rect.	± 0,5 (***) Non-rect. ± 0,3 (***) Rect. ± 1,5 (***) Non-rect ± 0,8 (***) Rect.		Suitable for	Suitable for	Suitable for	Suitable for
		Perpendicularity (Measurement only on short edges when L/I ≥ 3)		± 0,8 (***) Non-rect. ± 0,4 (***) Rect.	± 0,5 (***) Non-rect. ± 0,3 (***) Rect.	± 2,0 (***) Non-rect. ± 1,5 (***) Rect.	Suitable for	Suitable for	Suitable for	Suitable for
		Surface flatness		c.c. ± 0,8 Non-rect. c.c. ± 0,6 Rect.	c.c. ± 0,5 Non-rect. c.c. ± 0,4 Rect.	c.c. ± 2,0 Non-rect. c.c. ± 1,8 Rect.		Suitable for	Suitable for	Suitable for
				e.c. ± 0,8 Non-rect. e.c. ± 0,6 Rect.	e.c. ± 0,5 Non-rect. e.c. ± 0,4 Rect.	e.c. ± 2,0 Non-rect. e.c. ± 1,8 Rect.	Suitable for			
				w. ± 0,8 Non-rect. w. ± 0,6 Rect.	w. ± 0,5 Non-rect. w. ± 0,4 Rect.	w. ± 2,0 Non-rect. w. ± 1,8 Rect.				
Characterization	(10)	Water absorption level (in% by mass)	ISO 10545-3	E≤ 0,59	≤0.1%	≤0.1%	≤0.1%	≤0.1%		
Structural features	$\left( \begin{array}{c} \begin{array}{c} \\ \\ \end{array} \right)$		ASTM C373-18	Requirement ANSI	A137.1-2017 Water 0,5%	≤0.5%	≤0.5%	≤0.5%	≤0.5%	
	<u>\</u>	Breaking strenght	ISO 10545-4	S≥70 S≥13	$S \ge 700N$ (for thickness $< 7,5mm$ ) $S \ge 1300N$ (for thickness $\ge 7,5mm$ )				S≥1500 N	S≥10000 N
Bulk mechanical features		Bending resistance	130 10040-4		R ≥40 N/mm²	R ≥40 N/mm²	R ≥40 N/mm²	R ≥45 N/mm²		
		Bending and breaking load resistance <sup>(4)(5)</sup>	EN 1339 Annex F					≥T11 120x120 60x60 22,5x22,5  ≥U4 60x90 22,5x45,4		
		Impact resistance	ISO 10545-5		≥0.55	≥0.55	≥0.55	≥0.55		
Surface mechanical features		Deep abrasion resistance of unglazed tiles	ISO 10545-6		≤150mm³	≤150mm³	≤150mm³	≤150mm³		

- \* Permitted deviation, in % or mm, from the average size of each tile (2 or 4 sides) with respect to the manufacturing size (W).
- $^{\star\star} \text{ Permitted deviation, in \% or mm, from the average thickness of each tile with respect to the cited manufacturing thickness (W).}$
- $\ ^{***} \ \text{Maximum permitted straightness deviation, in \% or mm, with respect to the corresponding manufacturing sizes (W). } \\$
- \*\*\*\* Maximum permitted perpendicularity deviation, in % or mm, with respect to the corresponding manufacturing sizes (W).
- \*\*\*\* Maximum permitted centre curvature deviation, in % or mm, with respect to the diagonal calculated according to manufacturing sizes (W).
- e.c. Maximum permitted corner curvature deviation, in % or mm, with respect to the corresponding manufacturing sizes (W).
- w. Maximum permitted bending deviation, in % or mm, with respect to the diagonal calculated according to manufacturing sizes (W).
- (1) Determining the slip resistance of pedestrian surfaces; not applicable to sports flooring or road traffic flooring.
- (2) The anti-slip performance is guaranteed at the time of delivering the product.
- (3) However, tiles with a DCOF of 0.42 or greater are not necessarily suitable for all projects. The specifier shall determine tiles appropriate for specific project conditions, considering
- by way of example, but not in limitation, type of use, traffic, expected contaminants, expected maintenance, expected wear, and manufacturers' guidelines and recommendations."
- (4) For further details, please refer to the outdoor design general catalogue.
- (5) Only for products with 20 mm thickness







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				Requisites for nomi	J	Lims					
		Technical features	Test method	7 cm ≤ N < 15 cm N≥ 15 cm			Matte rectified				
		Technical reacares		(mm)	(%)	(mm)	6mm 120x278 cm	Matte rectified 9mm	Grip rectified	Outdoor rectified	
Thermo- igrometric features	(())	Coefficient of linear thermal expansion	ISO 10545-8	Declared value		≤7MK <sup>-1</sup>	≤7MK <sup>-1</sup>	≤7MK <sup>-1</sup>	≤7MK <sup>-1</sup>		
	(**)	Thermal shock resistance	ISO 10545-9	Test passed in accordance	Test passed in accordance with ISO 10545-1			Resistant	Resistant	Resistant	
		Moisture expansion (in mm/m)	ISO 10545-10	Declared value			≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)	
	*	Frost resistance	ISO 10545-12	Test passed in accordance with ISO 10545-1			Resistant	Resistant	Resistant	Resistant	
Physical properties		Bond strenght	EN 1348	Declared value			≥1.0 N/mm² (Class C2 - EN 12004)				
		Reaction to fire	-	Class A1 or A1 <sub>fl</sub>			A1 - A1 <sub>fl</sub>				
Chemical features		Resistance to household chemicals and swimming pool salts		Minimum B class			А	А	А	А	
		Resistance to low concentrations of acids and alkalis	ISO 10545-13	Declared class			LA	LA	LA	LA	
		Resistance to high concentrations of acids and alkalis		Declared class			НА	НА	НА	НА	
		Stain resistance	ISO 10545-14	Declared class			5	5	5	5	
Safety characteristics (1)(2)		Booted ramp test	DIN EN 16165 ANNEX B (EX DIN 51130)	Declared cla	class		R9	R10	R11	R11	
		Barefoot Ramp test	DIN EN 16165 ANNEX A (EX DIN 51097)	Declared value		А	A+B	A+B+C	A+B+C		
		Pendulum friction Test	BS EN 16165 ANNEX C (EX BS 7976)	PTV ≥ 36 classifies the surface as "low slip risk"		PTV ≥ 36 Wet on demand	≥36Dry ≥36Wet	≥36Dry ≥36Wet	≥36Dry ≥36Wet		
			AS 4586	Declared Classification of the new pedestrian surface materials according to the Pendulum Test		P3 on demand	Class P3	Class P4	Class P4		
			UNE 41901 EX:2017	Declared value		C2 on demand	Class C2	Class C3	Class C3		
		Coefficient of friction	B.C.R.A. Rep. CEC/81	Min. Dec. 236/89 of 14/06/89 $\mu$ >0.40 for a sliding leather element on a dry $_{fl}$ oor $\mu$ >0.40 for a sliding hard rubber element on a wet $_{fl}$ oor		on a dry	>0.40Asciutto >0.40Bagnato		>0.40Asciutto >0.40Bagnato	>0.40Asciutto >0.40Bagnato	
		Dynamic coefficent of friction (DCOF)	ANSI A 326.3	-			Wet DCOF ≥ 0.42	Wet DCOF≥ 0.50	Wet DCOF≥ 0.55	Wet DCOF ≥ 0.55	

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- $\ ^{\star\star} \ \mathsf{Permitted} \ \mathsf{deviation}, \mathsf{in} \ \% \ \mathsf{or} \ \mathsf{mm}, \mathsf{from} \ \mathsf{the} \ \mathsf{average} \ \mathsf{thickness} \ \mathsf{of} \ \mathsf{each} \ \mathsf{tile} \ \mathsf{with} \ \mathsf{respect} \ \mathsf{to} \ \mathsf{the} \ \mathsf{cited} \ \mathsf{manufacturing} \ \mathsf{thickness} \ \mathsf{(W)}.$
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