





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 14%"x29 /2" | 9mm | 9mm

		Requisites for nominal size N			Lims					
			Test method	7 cm ≤ N < 15 cm	N ≥ 1	15 cm	Matte			
		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.			Suitable for	Suitable for	Suitable for
	( ST ( ST)	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.	0,5 (***) Non-rect. ± 2,0 (***) Non-rect. ± 0,3 (***) Rect. ± 1,5 (***) Rect.		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
				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		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.				
Churchinal	$\left(\begin{array}{c} CO_{2} \end{array}\right)$	Water absorption level (in% by mass)	ISO 10545-3	E≤ 0,59	≤0.1%	≤0.1%	≤0.1%	≤0.1%		
Structural features			ASTM C373-18	Requirement ANSI	I A137.1-2017 Water 0,5%	≤0.5%	≤0.5%	≤0.5%	≤0.5%	
		Breaking strenght	ISO 10545-4	S≥70 S≥13	S≥1000 N	S≥1500 N	S≥1500 N	S≥10000 N		
		Bending resistance	130 10040-4		R ≥40 N/mm²	R ≥40 N/mm²	R ≥40 N/mm²	R ≥45 N/mm²		
Bulk mechanical features		Bending and breaking load resistance <sup>(4)(5)</sup>	EN 1339 Annex F					≥T11 120×120 60×60 22,5×22,5  ≥U4 60×90 22,5×45,4		
		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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			Test method	Requisites for nom	N	Lims				
		Technical features		7 cm ≤ N < 15 cm N ≥ 15 cm			Matte rectified	Matte rectified		Outdoor
				(mm)	(%)	(mm)	6mm 120x278 cm	9mm	Grip rectified	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 with ISO 10545-1			Resistant	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>	A1 - A1 <sub>fl</sub>	A1 - A1 <sub>fl</sub>	A1 - A1 <sub>fl</sub>
Chemical features		Resistance to household chemicals and swimming pool salts		Minimum B c	Minimum B class			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 cla	Declared class			НА	НА	НА
		Stain resistance	ISO 10545-14	Declared class			5	5	5	5
		Booted ramp test	DIN EN 16165 ANNEX B (EX DIN 51130)	Declared cla	red class		R9	R10	R11	R11
Safety characteristics (1)(2)		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 vo	alue		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 floor $\mu$ >0.40 for a sliding hard rubber element on a wet floor		>0.40Asciutto >0.40Bagnato	>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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