





				Requisites for nominal size N				Etic Pro		
		Technical features	Test method	7 cm ≤ N < 15 cm N ≥ 15		L5 cm	Matte	Grip	Textured	
				(mm)	(%)	(mm)	rectified	rectified	rectified	
Regularity features		Length and width	ISO 10545-2	± 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	
		Thickness		± 0,5 (**)	± 5 (**)	± 0,5 (**)	Suitable for	Suitable for	Suitable for	
		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	
		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	
		Surface flatness		c.c. \pm 0,8 Non-rect. c.c. \pm 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.				
				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.				
Structural features	$\left(\begin{array}{c} C \\ C \end{array} \right)$	Water absorption level (in% by mass)	ISO 10545-3	E≤ 0,5% Individual Maximum 0,6%		≤0.1%	≤0.1%	≤0.1%		
			ASTM C373-18	Requirement ANSI A137.1-2017 Water Absorption Max < 0,5%		≤0.5%	≤0.5%	≤0.5%		
Bulk mechanical features	\	Breaking strenght	ISO 10545-4	S ≥ 700N (for thickness < 7,5mm) S ≥ 1300N (for thickness ≥ 7,5mm)		S≥1500 N	S≥1500 N	S≥10000 N		
		Bending resistance	130 10345-4	R ≥ 35 N/mm²			R ≥40 N/mm²	R ≥40 N/mm²	R ≥45 N/mm²	
		Bending and breaking load resistance ⁽⁴⁾ (5)	EN 1339 Annex F	-					≥T11 60x60 ≥U3 30x120	
		Impact resistance	ISO 10545-5	Declared value		≥0.55	≥0.55	≥0.55		
Surface mechanical features		Mohs hardness	EN 101	-		MOHS 6	MOHS 8	MOHS 8		
		Deep abrasion resistance of unglazed tiles	ISO 10545-6	≤ 175 mm³		≤150mm³	≤150mm³	≤150mm³		

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- ** Permitted deviation, in % or mm, from the average thickness of each tile with respect to the cited manufacturing thickness (W).
- $\ ^{***} \ Maximum \ permitted \ straightness \ deviation, in \% \ or \ mm, \ with \ respect to the \ corresponding \ manufacturing \ sizes \ (W). \\$
- **** 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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		Technical features	Test method	7 cm ≤ N < 15 cm N ≥ 15 cm		EUC PIO				
		recrimedirectures		(mm)	(%) (mm)	Matte rectified	Grip rectified	Textured rectified		
Thermo- igrometric features	(°)	Coefficient of linear thermal expansion	ISO 10545-8	Declared value		≤7MK ⁻¹	≤7MK ⁻¹	≤7MK ⁻¹		
	(<u>*</u>	Thermal shock resistance	ISO 10545-9	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)		
	紫	Frost resistance	ISO 10545-12	Test passed in accordance with ISO 10545-1		Resistant	Resistant	Resistant		
Physical properties		Bond strenght	EN 1348	Declared value		≥1.0 N/mm² (Class C2 - EN 12004)	≥1.0 N/mm² (Class C2 - EN 12004)	≥1.0 N/mm² (Class C2 - EN 12004)		
		Reaction to fire	-	Class A1 or A1 _{fl}		A1 - A1 _{fl}	A1 - A1 _{fl}	A1 - A1 _{fl}		
Chemical features		Resistance to household chemicals and swimming pool salts		Minimum B class		А	А	А		
		Resistance to low concentrations of acids and alkalis	ISO 10545-13	Declared class		LA	LA	LA		
		Resistance to high concentrations of acids and alkalis		Declared class		НА	НА	НА		
		Stain resistance	ISO 10545-14	Declared class		5	5	5		
Safety characteristics (1)(2)		Booted ramp test	DIN 51130	Declared class		R9	R11	R11		
		Barefoot Ramp test	DIN 51097	Declared va	lue	А	A+B+C	A+B+C		
		Pendulum friction Test	BS 7976	PTV ≥ 36 classifies the surface as "low slip risk"		PTV≥36 Wet on demand	≥36Dry ≥36Wet	≥36Dry ≥36Wet		
			AS 4586	Declared Classification of the new pedestrian surface materials according to the Pendulum Test		P3 on demand	Class P4	Class P4		
			UNE-ENV 12633 UNE 41901:2017 EX	Declared value		C2 on demand	Class C3	Class C3		
		Coefficient of friction	B.C.R.A. Rep. CEC/81	Min. Dec. 236/89 of 14/06/89 μ >0.40 for a sliding leather element on a dry floor μ >0.40 for a sliding hard rubber element on a wet $_{fl}$ oor		>0.40Asciutto >0.40Bagnato	>0.40Asciutto >0.40Bagnato	>0.40Asciutto >0.40Bagnato		
		Dynamic coefficent of friction (DCOF)	ANSI A.137.1	ANSI A.137.1-2017 Requires a minimum value of 0.42 for level interior space expected to be walked upon when wet. (3)		> 0.42 Wet	> 0.42 Wet	> 0.42 Wet		

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