



Sizes	25x150 cm 25x150 9 7/8"x59" ± 9.5mm	22.5x90 cm 8 7/8"x35 3/8" ± 9mm	15x90 cm 5 7/8"x35 3/8" ± 9mm	30x120 cm 30x120 cm Lastra 20mm ± 20mm	60x60 cm 60x60 cm Lastra 20mm ± 20mm
-------	---	---------------------------------------	-------------------------------------	--	--

TECHNICAL FEATURES / TECHNICAL FEATURES				Requirements for nominal size N Requisiti per dimensione nominale N			ETIC PRO				
				7 cm ≤ N < 15 cm (mm)		N ≥ 15 cm (%)		Matt	Polished	Grip	Textured 20 mm
Regularity features		Length and width Length and width	± 0,9 (*)	± 0,6 (*)	± 2,0 (*)	±0.3% ±1.0mm	±0.3% ±1.0mm	±0.3% ±1.0mm	±0.3% ±1.0mm		
		Thickness Thickness	± 0,5 (**)	± 5 (***)	± 0,5 (**)	±5.0% ±0.5mm	±5.0% ±0.5mm	±5.0% ±0.5mm	±5.0% ±0.5mm		
		Straightness of sides Straightness of sides	± 0,75 (***)	± 0,5 (***)	± 1,5 (***)	±0.3% ±0.8mm	±0.3% ±0.8mm	±0.3% ±0.8mm	±0.3% ±0.8mm		
		Rectangularity (Measurement only on short edges when L/l ≥ 3) Ortogonalità (Misurazione da condurre solo sui lati corti quando ≥ L/l 3)	± 0,75 (****)	± 0,5 (****)	± 2,0 (****)	±0.3% ±1.5mm	±0.3% ±1.5mm	±0.3% ±1.5mm	±0.3% ±1.5mm		
		Surface flatness Surface flatness	c.c. ± 0,75 e.c. ± 0,75 w. ± 0,75	c.c. ± 0,5 e.c. ± 0,5 w. ± 0,5	c.c. ± 2,0 e.c. ± 2,0 w. ± 2,0	±0.4% ±1.8mm	±0.3% ±1.5mm	Not applicable	Not applicable		
				EN 14411 annex G (Group Bla) EN 14411 appendice G (Gruppo Bla)		ISO 13006 annex G (Group Bla) ISO 13006 appendice G (Gruppo Bla)					
Structural features		Water absorption level (in% by mass) Water absorption level (come % della massa)	ISO 10545-3	$E_B \leq 0,5\%$ Individual max 0,6% $E_B \leq 0,5\%$ Valore max singolo 0,6%		≤0.1%	≤0.1%	≤0.1%	≤0.1%		
Bulk mechanical features		Breaking strength Breaking strength	ISO 10545-4	S ≥ 1300 N		S ≥2000 N	S ≥2000 N	S ≥2000 N	S ≥10000 N		
		Modulus of Rupture Modulus of Rupture		R ≥ 35 N/mm ²		R ≥45 N/mm ²	R ≥45 N/mm ²	R ≥45 N/mm ²	R ≥45 N/mm ²		
		Impact resistance, as coefficient of restitution Resistenza all'impatto, espresso come coefficiente di restituzione	ISO 10545-5	Declare a value Dichiarare un valore	Test method available Metodo di prova disponibile	≥0.55	≥0.55	≥0.55	≥0.55		
Surface mechanical features		Mohs hardness Mohs hardness	EN 101 ⁽¹⁾	-		MOHS 6	MOHS 5	MOHS 8	MOHS 8		
		Resistance to deep abrasion of unglazed tiles (removed volume) Resistenza all'abrasione profonda delle piastrelle non smaltate (volume materiale asportato)	ISO 10545-6	≤ 175 mm ³		≤150mm ³	≤150mm ³	≤150mm ³	≤150mm ³		
Thermo-igrometric features		Linear Thermal Expansion Coefficient Linear Thermal Expansion Coefficient	ISO 10545-8	Declare a value Dichiarare un valore	Test method available Metodo di prova disponibile	≤7 1/mk	≤7 1/mk	≤7 1/mk	≤7 1/mk		
		Thermal shock resistance Thermal shock resistance	ISO 10545-9	Pass according to EN ISO 10545-1 Test superato in accordo con ISO 10545-1	Test method available Metodo di prova disponibile	Resiste	Resiste	Resiste	Resiste		
		Expansion due to humidity (mm/m) Dilatazione all'umidità (in mm/m)	ISO 10545-10	Declare a value Dichiarare un valore	Test method available Metodo di prova disponibile	≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)		
		Frost resistance Frost resistance	ISO 10545-12	Pass according to EN ISO 10545-1 Test superato in accordo con ISO 10545-1	Required Metodo di prova richiesto	Resiste	Resiste	Resiste	Resiste		
Physical properties		Bond strength/adhesion for improved cementitious adhesives Bond Strength	EN 1348	Declare a value Dichiarare un valore	-	≥1.0 N/mm ² (Class C2 - EN 12004)	≥1.0 N/mm ² (Class C2 - EN 12004)	≥1.0 N/mm ² (Class C2 - EN 12004)	≥1.0 N/mm ² (Class C2 - EN 12004)		
		Reaction to fire Reaction to fire	-	Class A1 or A1_{fl} Classe A1 oppure A1 _{fl}	-	A1 - A1 _{fl}	A1 - A1 _{fl}	A1 - A1 _{fl}	A1 - A1 _{fl}		
Chemical features		Resistance to household chemicals and swimming pool salts Resistance to household chemicals and swimming pool salts	ISO 10545-13	Minimum Class B (UB for unglazed tiles) Classe minima B (UB per piastrelle non smaltate)		UA	UA	UA	UA		
		Resistance to low concentrations of acids and alkalis Resistance to low concentrations of acids and alkalis		Declare a class Dichiarare una classe	Manufacturer is to state classification Secondo la classificazione indicata dal fabbricante	ULA	ULA	ULA	ULA		
		Resistance to high concentrations of acids and alkalis Resistance to high concentrations of acids and alkalis		Declare a class Dichiarare una classe	Test method available Metodo di prova disponibile	UHA	0	UHA	UHA		
		Resistance to staining for glazed tiles Resistenza alle macchie piastrelle smaltate	ISO 10545-14	Declare a class Dichiarare una classe	Test method available Metodo di prova disponibile	UA	UA	UA	UA		
Safety features		Barefoot Ramp Test Barefoot Ramp Test	DIN 51097	Declare a value Dichiarare un valore	-	A	0	A+B+C	A+B+C		
		Shod Ramp Test Shod Ramp Test	DIN 51130	Declare a value Dichiarare un valore	-	R9	N.C.	R11	R11		
		Pendulum Friction Test Pendulum Friction Test	UNE-ENV 12633 BS 7976-2002	Declare a value Dichiarare un valore	-	Class 1	Class 0	Class 3	Class 3		
Safety features		Coefficient of friction (COF) Coefficiente di attrito	B.C.R.A. Rep. CEC/81	D. M. 236/89 del 14/06/89 μ >0,40 per elemento scivolante cuoio su pavimentazione asciutta μ >0,40 per elemento scivolante gomma dura su pavimentazione bagnata		>0.40Asciutto >0.40Bagnato	>0.40Asciutto <0.40Bagnato	>0.40Asciutto >0.40Bagnato	>0.40Asciutto >0.40Bagnato		
		Dynamic Coefficient of Friction Dynamic Coefficient of Friction	ANSI A137.1 - 2012	ANSI A.137.1 Requires a minimum value of 0.42 for commercial areas that are likely to be wet.		>0.42Wet	<0.42Wet	>0.42Wet	>0.42Wet		
		Static Coefficient of Friction Static Coefficient of Friction	ASTM C1028 - 2007	The Ceramic Tiles Institute Identifies Tile Slip Resistant when SCOF ≥ 0.60		≥0.60Dry ≥ 0.60Wet	≥0.60Dry 0.50/0.60Wet	≥0.80Dry ≥ 0.80Wet	≥0.80Dry ≥ 0.80Wet		
		Pendulum Friction Test Pendulum Friction Test	AS/NZS 4586 - 2013	Declared Classification of the pedestrian surface materials according to the Wet Pendulum Test		Class P3 on demand	ClassP0	ClassP4	ClassP5		

(*) The permissible deviation, in % or mm, of the average size for each tile (2 or 4 sides) from work size (W).
 (**) The permissible deviation, in % or mm, of the average thickness for each tile from the work size thickness (W).
 (***) The maximum permissible deviation from straightness, in % or mm, related to the corresponding work sizes (W).
 (****) The maximum permissible deviation from rectangularity, in % or mm, related to the corresponding work sizes (W).
 c.c. The maximum permissible deviation from centre curvature, in % or mm, related to diagonal calculated from the work sizes (W).
 e.c. The maximum permissible deviation from edge curvature, in % or mm, related to the corresponding work sizes (W).
 w The maximum permissible deviation from warpage, in % or mm, related to diagonal calculated from the work sizes (W).
 (1) Requirements european standard EN 176.
 (2) Determination of slip resistance of pedestrian surfaces; it does not cover sports surfaces and road surfaces for vehicles (skid resistance).
 Anti-slip performance is guaranteed at the time of delivery of the product