



Sizes	45x90 cm 17 3/4"x35 3/8" ± 9mm	22.5x90 cm 8 7/8"x35 3/8" ± 9mm	15x90 cm 5 7/8"x35 3/8" ± 9mm	60x60 cm 23 5/8"x23 5/8" ± 9mm	30x60 cm 11 3/4"x23 5/8" ± 9mm	60x60 cm 60x60 cm Lastra 20mm ± 20mm
-------	--------------------------------------	---------------------------------------	-------------------------------------	--------------------------------------	--------------------------------------	--------------------------------------------

TECHNICAL FEATURES / TECHNICAL FEATURES				Requirements for nominal size N			SUNROCK		
				Requirements for nominal size N		Matt	Textured	Textured 20 mm	
				7 cm ≤ N < 15 cm	N ≥ 15 cm				
				(mm)	(%)	(mm)			
Regularity features		Length and width Length and width	ISO 10545-2	± 0,9 (*)	± 0,6 (*)	± 2,0 (*)	±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
		Straightness of sides Straightness of sides		± 0,75 (***)	± 0,5 (***)	± 1,5 (***)	±0.3% ±0.8mm	±0.3% ±0.8mm	±0.3% ±0.8mm
		Rectangularity (Measurement only on short edges when L/l ≥ 3) Rectangularity (Measurement only on short edges when L/l ≥ 3)		± 0,75 (****)	± 0,5 (****)	± 2,0 (****)	±0.3% ±1.5mm	±0.3% ±1.5mm	±0.3% ±1.5mm
		Surface flatness Surface flatness		c.c. ± 0,75	c.c. ± 0,5	c.c. ± 2,0	±0.4% ±1.8mm	Not applicable	Not applicable
				e.c. ± 0,75	e.c. ± 0,5	e.c. ± 2,0			
		w. ± 0,75		w. ± 0,5	w. ± 2,0				
				EN 14411 annex G (Group Bla) EN 14411 annex G (Group Bla)		ISO 13006 annex G (Group Bla) ISO 13006 annex G (Group Bla)			
Structural features		Water absorption level (in% by mass) Water absorption level (in% by mass)	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%	
Bulk mechanical features		Breaking strength Breaking strength	ISO 10545-4	S ≥ 1300 N		S ≥ 2000 N	S ≥ 2000 N	S ≥ 10000 N	
		Modulus of Rupture Modulus of Rupture		R ≥ 35 N/mm ²		R ≥ 40 N/mm ²	R ≥ 45 N/mm ²	R ≥ 45 N/mm ²	
		Impact resistance, as coefficient of restitution Impact resistance, as coefficient of restitution	ISO 10545-5	Declare a value Declare a value	Test method available Test method available	≥0.55	≥0.55	≥0.55	
Surface mechanical features		Mohs hardness Mohs hardness	EN 101 ⁽¹⁾	-		MOHS 7	MOHS 8	MOHS 8	
		Resistance to deep abrasion of unglazed tiles (removed volume) Resistance to deep abrasion of unglazed tiles (removed volume)	ISO 10545-6	≤ 175 mm ³		≤150mm ³	≤150mm ³	≤150mm ³	
Thermo-igrometric features		Linear Thermal Expansion Coefficient Linear Thermal Expansion Coefficient	ISO 10545-8	Declare a value Declare a value	Test method available Test method available	≤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 Pass according to EN ISO 10545-1	Test method available Test method available	Resiste	Resiste	Resiste	
		Expansion due to humidity (mm/m) Expansion due to humidity (mm/m)	ISO 10545-10	Declare a value Declare a value	Test method available Test method available	≤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 Pass according to EN ISO 10545-1	Required Required	Resiste	Resiste	Resiste	
Physical properties		Bond strength/adhesion for improved cementitious adhesives Bond strength/adhesion for improved cementitious adhesives	EN 1348	Declare a value Declare a value	-	≥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} Class A1 or 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) Minimum Class B (UB for unglazed tiles)		UA	UA	UA	
		Resistance to low concentrations of acids and alkalis Resistance to low concentrations of acids and alkalis		Declare a class Declare a class	Manufacturer is to state classification Manufacturer is to state classification	ULA	ULA	ULA	
		Resistance to high concentrations of acids and alkalis Resistance to high concentrations of acids and alkalis		Declare a class Declare a class	Test method available Test method available	UHA	UHA	UHA	
		Resistance to staining for glazed tiles Resistance to staining for glazed tiles	ISO 10545-14	Declare a class Declare a class	Test method available Test method available	UA	UA	UA	
Safety features		Barefoot Ramp Test Barefoot Ramp Test	DIN 51097	Declare a value Declare a value	-	A	A+B+C	A+B+C	
		Shod Ramp Test Shod Ramp Test	DIN 51130	Declare a value Declare a value	-	R9	R11	R11	
		Pendulum Friction Test Pendulum Friction Test	UNE-ENV 12633	Declare a value Declare a value	-	Class 1	Class 3	Class 3	
Safety features		Coefficient of friction (COF) Coefficient of friction (COF)	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	
		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	
		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	≥0.80Dry ≥ 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	ClassP4	ClassP4	

(*) 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