



Sizes	75x150 cm 29 1/2"x59" ± 9.5mm	45x90 cm 17 3/4"x35 3/8" ± 9mm	60x60 cm 23 5/8"x23 5/8" ± 9mm	30x60 cm 11 3/4"x23 5/8" ± 9mm
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TECHNICAL FEATURES / TECHNICAL FEATURES				Requirements for nominal size N			MEK
				Requirements for nominal size N			
				7 cm ≤ N < 15 cm	N ≥ 15 cm		Matt
				(mm)	(%)	(mm)	
Regularity features		<b>Length and width</b> Length and width	ISO 10545-2	± 0,9 (*)	± 0,6 (*)	± 2,0 (*)	±0.3% ±1.0mm
		<b>Thickness</b> Thickness		± 0,5 (**)	± 5 (**)	± 0,5 (**)	±5.0% ±0.5mm
		<b>Straightness of sides</b> Straightness of sides		± 0,75 (***)	± 0,5 (***)	± 1,5 (***)	±0.3% ±0.8mm
		<b>Rectangularity (Measurement only on short edges when L/l ≥ 3)</b> Rectangularity (Measurement only on short edges when L/l ≥ 3)		± 0,75 (****)	± 0,5 (****)	± 2,0 (****)	±0.3% ±1.5mm
		<b>Surface flatness</b> Surface flatness		c.c. ± 0,75	c.c. ± 0,5	c.c. ± 2,0	±0.4% ±1.8mm
			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		<b>Water absorption level (in% by mass)</b> Water absorption level (in% by mass)	ISO 10545-3	<b>E<sub>B</sub> ≤ 0,5% Individual max 0,6%</b> E <sub>B</sub> ≤ 0,5% Valore max singolo 0,6%		≤0.1%	
Bulk mechanical features		<b>Breaking strength</b> Breaking strength	ISO 10545-4	S ≥ 1300 N		S ≥ 1500 N	
		<b>Modulus of Rupture</b> Modulus of Rupture		R ≥ 35 N/mm <sup>2</sup>		R ≥ 40 N/mm <sup>2</sup>	
		<b>Impact resistance, as coefficient of restitution</b> Impact resistance, as coefficient of restitution	ISO 10545-5	<b>Declare a value</b> Declare a value	<b>Test method available</b> Test method available	≥0.55	
Surface mechanical features		<b>Mohs hardness</b> Mohs hardness	EN 101 <sup>(1)</sup>	-		MOHS 6	
		<b>Resistance to deep abrasion of unglazed tiles (removed volume)</b> Resistance to deep abrasion of unglazed tiles (removed volume)	ISO 10545-6	≤ 175 mm <sup>3</sup>		≤150mm <sup>3</sup>	
Thermo-igrometric features		<b>Linear Thermal Expansion Coefficient</b> Linear Thermal Expansion Coefficient	ISO 10545-8	<b>Declare a value</b> Declare a value	<b>Test method available</b> Test method available	≤7 1/mk	
		<b>Thermal shock resistance</b> Thermal shock resistance	ISO 10545-9	<b>Pass according to EN ISO 10545-1</b> Pass according to EN ISO 10545-1	<b>Test method available</b> Test method available	Resiste	
		<b>Expansion due to humidity (mm/m)</b> Expansion due to humidity (mm/m)	ISO 10545-10	<b>Declare a value</b> Declare a value	<b>Test method available</b> Test method available	≤0.01% (0.1mm/m)	
		<b>Frost resistance</b> Frost resistance	ISO 10545-12	<b>Pass according to EN ISO 10545-1</b> Pass according to EN ISO 10545-1	<b>Required</b> Required	Resiste	
Physical properties		<b>Bond strength/adhesion for improved cementitious adhesives</b> Bond strength/adhesion for improved cementitious adhesives	EN 1348	<b>Declare a value</b> Declare a value	-	≥1.0 N/mm <sup>2</sup> (Class C2 - EN 12004)	
		<b>Reaction to fire</b> Reaction to fire	-	<b>Class A1 or A1<sub>fl</sub></b> Class A1 or A1 <sub>fl</sub>	-	A1 - A1 <sub>fl</sub>	
Chemical features		<b>Resistance to household chemicals and swimming pool salts</b> Resistance to household chemicals and swimming pool salts	ISO 10545-13	<b>Minimum Class B (UB for unglazed tiles)</b> Minimum Class B (UB for unglazed tiles)		UA	
		<b>Resistance to low concentrations of acids and alkalis</b> Resistance to low concentrations of acids and alkalis		<b>Declare a class</b> Declare a class	<b>Manufacturer is to state classification</b> Manufacturer is to state classification	ULA	
		<b>Resistance to high concentrations of acids and alkalis</b> Resistance to high concentrations of acids and alkalis		<b>Declare a class</b> Declare a class	<b>Test method available</b> Test method available	UHA	
		<b>Resistance to staining for glazed tiles</b> Resistance to staining for glazed tiles	ISO 10545-14	<b>Declare a class</b> Declare a class	<b>Test method available</b> Test method available	UA	
Safety features		<b>Barefoot Ramp Test</b> Barefoot Ramp Test	DIN 51097	<b>Declare a value</b> Declare a value	-	A	
		<b>Shod Ramp Test</b> Shod Ramp Test	DIN 51130	<b>Declare a value</b> Declare a value	-	R10	
		<b>Pendulum Friction Test</b> Pendulum Friction Test	UNE-ENV 12633 BS 7976-2002	<b>Declare a value</b> Declare a value	-	Class 1	
Safety features		<b>Coefficient of friction (COF)</b> 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	
		<b>Dynamic Coefficient of Friction</b> Dynamic Coefficient of Friction	ANSI A137.1 - 2012	<b>ANSI A.137.1 Requires a minimum value of 0.42 for commercial areas that are likely to be wet.</b>		>0.42Wet	
		<b>Static Coefficient of Friction</b> Static Coefficient of Friction	ASTM C1028 - 2007	<b>The Ceramic Tiles Institute Identifies Tile Slip Resistant when SCOF ≥ 0,60</b>		≥0.60Dry ≥0.60Wet	
		<b>Pendulum Friction Test</b> Pendulum Friction Test	AS/NZS 4586 - 2013	<b>Declared Classification of the pedestrian surface materials according to the Wet Pendulum Test</b>		Class P3 on demand	

(\*) 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