



TECHNICAL FEATURES	
Collection: Eterna Surface: Structured surface	Brand: Ragno
Size (cm): 60x120 - 60x60 - 30x60	Thickness (mm): 8,5

Compliant with standard EN 14411:2016 annex G group Bla - GL

Compliant with standard ISO 13006:2018 annex G group Bla - GL

Technical Features	Testing Method	Meas. unit	Average Typical Values	Established limits
DIMENSIONAL PROPERTIES AND SURFACE QUALITY				
Dimensions			Nominal Length of edge N (cm) 7≤N<15	Nominal Length of edge N (cm) N≥15
Length and width (*)	ISO 10545-2	(mm) (%)	Complies with the standards	±2% (max 5mm) ±2% (max 5mm) ±2% (max 5mm)
Length and width (**)				
Not Rectified			Complies with the standards	±0,9 mm ±0,6% ±2,0 mm
Rectified				±0,4 mm ±0,3% ±1,0 mm
Thickness				
Not Rectified			Complies with the standards	±0,5 mm ±5% ±0,5 mm
Rectified				±0,5 mm ±5% ±0,5 mm
Straightness of sides				
Not Rectified			Complies with the standards	±0,75 mm ±0,5% ±1,5 mm
Rectified				±0,4 mm ±0,3% ±0,8 mm
Rectangularity				
Not Rectified			Complies with the standards	±0,75 mm ±0,5% ±2,0 mm
Rectified				±0,4 mm ±0,3% ±1,5 mm
Surface Flatness c.c - e.c. - w.				
Not Rectified			Complies with the standards	±0,75 mm ±0,5% ±2,0 mm
Rectified				±0,6 mm ±0,4% ±1,8 mm
Surface Quality		Complies with the standards	≥95%	
PHYSICAL PROPERTIES				
Water absorption	ISO 10545-3	(%)	≤ 0,5	Eb ≤ 0,5 (Individual maximum value 0,6%)
Modulus of rupture	ISO 10545-4	(N/mm ²)	≥ 35	R ≥ 35 (Individual minimum value 32 N/mm ²)
Breaking Strength	ISO 10545-4	(N)	≥ 1300	≥1300 (Thickness ≥7,5 mm) ≥700 (Thickness < 7,5 mm)
Resistance to surface abrasion	Internal Method		See attached table	
Linear thermal expansion coefficient	ISO 10545-8	(x(10) ⁻⁶ /°C)	≤ 9	Declared value (EN 14411:2016) Test Method available (ISO 13006:2018)
Thermal shock resistance	ISO 10545-9		Complies with the standards	Declared value (EN 14411:2016) **** Test Method available (ISO 13006:2018)
Crazing Resistance	ISO 10545-11		Complies with the standards	Pass according to EN ISO 10545-1 (EN 14411:2016) Required (ISO 13006:2018)
Frost resistance	ISO 10545-12		Complies with the standards	Pass according to EN ISO 10545-1 (EN 14411:2016) Required (ISO 13006:2018)
Reaction to fire	-	-	Floor/Wall Class A1 FL / A1	Class A1 or Class A1 FL (EN 14411:2016)
Colour resistance to light exposure	DIN 51094		Complies with the standards	No sample must show noticeable colour modifications.



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CHEMICAL PROPERTIES				
Resistance to chemicals for household use and swimming pool salts	ISO 10545-13		A	GB Minimum (EN 14411:2016) GB Minimum (ISO 13006:2018)
Resistance to low concentrations of acids and alkalis	ISO 10545-13		LA-LB	Declared value (EN 14411:2016) Test Method available (ISO 13006:2018)
Resistance to high concentrations of acids and alkalis	ISO 10545-13		HA-HB	Declared value (EN 14411:2016) Test Method available (ISO 13006:2018)
Stain resistance	ISO 10545-14		Class 5	Minimum class 3 (EN 14411:2016) Minimum class 3 (ISO 13006:2018)
Reduction of bacterial colonies (a)	ISO 22196 (JIS Z 2801)	%	Up to 99,9%	
ANTISLIPPERY PROPERTIES				
Slipperiness Resistance: Ramp Method	DIN 51130 DGUV Regel 108-003		R11	from R9 to R13
Slipperiness Resistance: Ramp Method	DIN 51097 DGUV Information 207-006		C(A+B+C)	from A to C
Slipperiness Resistance: B.C.R.	D.M. N.236 14/6/89		$\mu > 0,40$	$\mu > 0,40$
Slipperiness Resistance: Pendulum	UNE 41901:2017 EX DB SUA (actual)		Class 3	From Class 0 to Class 3
Slipperiness Resistance: Pendulum	BS7976-2:2002 / BSEN13036-4:2011		> 36	0 - 24 Slippery; 25 - 35 Moderately slippery; 36+ Low slipping risk
Dynamic coefficient of friction (DCOF)	ANSI A326.3:2017		> 0,42	$\geq 0,42$

* The work size shall be chose, for non-modular tiles, so that the difference between the work size and the nominal size is:

** The deviation, in percent, of the average size for each tile (2 or 4 sides) from the work size..

**** See Table 2 for uses where it is applicable

c.c. Centre curvature, related to diagonal calculated from the work sizes

e.c. Edge curvature, related to the corresponding work sizes.

w. Warpage, related to diagonal calculated from the work sizes.

a. Antibacterial activity is measured by quantifying the survival of bacterial cells which have been held in intimate contact for 24 hours at 35°C with a surface that contains an antibacterial agent. The antibacterial effect is measured by comparing the survival of bacteria on a treated material with that achieved on an untreated material.


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Resistance to surface	abrasion – Internal Method
Bianco - arena - mix beige	Intended use - Class H
Greige - mix multicolor - mix gris	Intended use - Class G