



TECHNICAL FEATURES			
Collecion	Calce	Brand	Ragno
Size (cm)	7X28	Thickness (mm)	9

Compliant with standard EN 14411:2012 annex G group Bla - GL

Compliant with standard ISO 13006:2012 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) $7 \leq N < 15$ Nominal Length of edge N (cm) $N \geq 15$
Length and width (*)	ISO 10545-2	(mm) (%)	Complies with the standards	$\pm 2\%$ (max 5mm) $\pm 2\%$ (max 5mm) $\pm 2\%$ (max 5mm)
Length and width (**)			Complies with the standards	$\pm 0,9$ mm $\pm 0,6\%$ $\pm 2,0$ mm
Thickness			Complies with the standards	$\pm 0,5$ mm $\pm 5\%$ $\pm 0,5$ mm
Straightness of sides			Complies with the standards	$\pm 0,75$ mm $\pm 0,5\%$ $\pm 1,5$ mm
Rectangularity			Complies with the standards	$\pm 0,75$ mm $\pm 0,5\%$ $\pm 2,0$ mm
Surface Flatness c.c - e.c. - w.			Complies with the standards	$\pm 0,75$ mm $\pm 0,5\%$ $\pm 2,0$ mm
Surface Quality		(%)	Complies with the standards	$\geq 95\%$
PHISICAL PROPERTIES				
Water absorption	ISO 10545-3	(%)	$\leq 0,5$	$E_b \leq 0,5$ (Individual maximum value 0,6%)
Modulus of rupture	ISO 10545-4	(N/mm ²)	≥ 35	$R \geq 35$ (Individual minimum value 32 N/mm ²)
Breaking strenght	ISO 10545-4	(N)	≥ 1300	≥ 1300 (Thickness $\geq 7,5$ 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 14411:2012) Testing Method available (ISO 13006:2012)
Thermal shock resistance	ISO 10545-9		Complies with the standards	Declared value (EN 14411:2012) **** Test Method available (secondo ISO 13006:2012)
Crazing Resistance	ISO 10545-11		Complies with the standards	Pass according to EN ISO 10545-1 (EN 14411:2012) Required (ISO 13006:2012)
Frost resistance	ISO 10545-12		Complies with the standards	Pass according to EN ISO 10545-1 (EN 14411:2012) Required (ISO 13006:2012)
Recation to fire	-	-	Floor/Wall Class A1 FL / A1	Class A1 or Class A1 FL (EN 14411:2012)
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		GA	GB Minimum (EN 14411:2012) GB Minimum (ISO 13006:2012)
Resistance to low concentrations of acids and alkalis	ISO 10545-13		GLA-GLB	Declared value (EN 14411:2012) Testing Method available (ISO 13006:2012)
Resistance to high concentrations of acids and alkalis	ISO 10545-13		GHA-GHB	Declared value (EN 14411:2012) Testing Method available (ISO 13006:2012)
Stain resistance	ISO 10545-14		Class 5	Minimum class 3 (EN 14411:2012) Minimum class 3 (ISO 13006:2012)

ANTISLIPPERY PROPERTIES				
Slipperiness Resistance: Ramp Method	DIN 51130 B.G.R. 181		R10	from R9 to R13
Slipperiness Resistance: Ramp Method	DIN 51097 DGUV Information 207-006		A	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	ENV 12633 BOE N.74 del 2006		Class 1	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 A137.1:2012		>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.


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Resistance to surface abrasion – Internal Method

Antracite	Intended use - Class G
Nero	Intended use - Class F
Nocciola	Intended use - Class G
Panna	Intended use - Class G
Perla	Intended use - Class G
Puro	Intended use - Class G