

TECHNICAL FEATURES	
Collection: Ottocento	Brand: Ragno
Size (cm): 20X20	Thickness (mm): 10

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

Compliant with standard ISO 13006:2016 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 Strength	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	($\times 10^{-6}/^{\circ}\text{C}$)	≤ 9	Declared value (EN 14411:2016) Test Method available (ISO 13006:2016)	
Thermal shock resistance	ISO 10545-9		Complies with the standards	Declared value (EN 14411:2016) **** Test Method available (ISO 13006:2016)	
Crazing Resistance	ISO 10545-11		Complies with the standards	Pass according to EN ISO 10545-1 (EN 14411:2016) Required (ISO 13006:2016)	
Frost resistance	ISO 10545-12		Complies with the standards	Pass according to EN ISO 10545-1 (EN 14411:2016) Required (ISO 13006:2016)	
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.	

TECHNICAL FEATURES	
Collection: Ottocento	Brand: Ragno
Size (cm): 20X20	Thickness (mm): 10

Technical Features	Testing Method	Meas. unit	Average Typical Values	Established limits
CHEMICAL PROPERTIES				
Resistance to chemicals for household use and swimming pool salts	ISO 10545-13		A	GB Minimum (EN 14411:2016) GB Minimum (ISO 13006:2016)
Resistance to low concentrations of acids and alkalis	ISO 10545-13		LA-LB	Declared value (EN 14411:2016) Test Method available (ISO 13006:2016)
Resistance to high concentrations of acids and alkalis	ISO 10545-13		HA-HB	Declared value (EN 14411:2016) Test Method available (ISO 13006:2016)
Stain resistance	ISO 10545-14		Class 5	Minimum class 3 (EN 14411:2016) Minimum class 3 (ISO 13006:2016)

ANTISLIPPERY PROPERTIES				
Slipperiness Resistance: Ramp Method	DIN 51130 B.G.R. 181		R9	from R9 to R13
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
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.

TECHNICAL FEATURES

Collection: Ottocento	Brand: Ragno
Size (cm): 20X20	Thickness (mm): 10

Resistance to surface abrasion – Internal Method

Resistance to surface	abrasion – Internal Method
Ottocento ambra	Intended use - Class H
Ottocento basalto	Intended use - Class H
Ottocento cadmio	Intended use - Class H
Ottocento cobalto	Intended use - Class G
Ottocento decori	Intended use - Class H
Ottocento ocra	Intended use - Class H
Ottocento pomice	Intended use - Class H
Ottocento terra	Intended use - Class H