tele di marmo onyx

PORCELAIN/PORCELAINE

usage/utilisation: floor, wall/ plancher, mur
colour variation/variation de couleur: V3
slip resistance: 0.69 nat

Collection: Tele di marmo onyx silktech rectified

Size (cm): 60x120 - 30x60

Compliant with standard EN 14411:2016 annex G group BIa - GL
Compliant with standard ISO 13006:2018 annex G group BIa - 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			± 0.2% (±1.0 mm)	±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			± 0.2% (±0.8 mm)	±0,75 mm	±0,5 %	±1,5 mm
Rectified				±0,4 mm	±0,3 %	±0,8 mm
Rectangularity						
Not Rectified			± 0.2% (±1.5 mm)	±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			± 0.3% (±1.5 mm)	±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%)		
Water absorption	ASTM C373-14	(%)	≤ 0,5			
Modulus of rupture	ISO 10545-4	(N/mm2)	≥ 45	R ≥35 (Individual minimun value 32 N/mm2)		
Breaking Strength	ISO 10545-4	(N)	≥ 2000	≥1300 (Thickness ≥7,5 mm) ≥700 (Thickness < 7,5 mm)		
Breaking Strength	ASTM C648-04	(LBF)	≥ 400	Floor ≥ 250 LBF - Individual minimun value 225 LBF		
Resistance to surface abrasion	ISO 10545-7		See attached table	Abrasion class and cycles passed		
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)		
Colour resistance to light exposure	DIN 51094		Complies with the standards	No sample must show noticeable colour modifications.		

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 13006:2018)
Resistance to low concentrations of acids and alkalis	ISO 10545-13		LA	Declared value (EN 14411:2016) Test Method available (ISO 13006:2018)
Resistance to high concentrations of acids and alkalis	ISO 10545-13		HA	Declared value (EN 14411:2016) Test Method available (ISO 13006:2018)
Chemical Resistance	ASTM C650-04		Not Affected	Declared value (ANSI A137.1-2012)
Stain resistance	ISO 10545-14		Class 5	Minimum class 3 (EN 14411:2016) Minimum class 3 (ISO 13006:2018)
Stain resistance	ASTM C1378-04		Not Affected	Declared value (ANSI A137.1-2012)
			ANTISLIPPERY PROPERTIES	
Slipperiness Resistance: Ramp Method	DIN 51130 DGUV Regel 108-003		R10	from R9 to R13
Slipperiness Resistance: Ramp Method	DIN 51097 DGUV Information 207-006		B(A+B)	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 2	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		≥0.50	≥ 0,42
Slipperiness Resistance: Wet Pendulum Test Method	AS 4586-2013 Annex A		P3	from P0 to P5

* 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.

Resistance to surface	abrasion – ISO 10545-7
Dark colors	Class 4 - Visible abrasion after 2100 cycles
Light colors	Class 5 - Visible abrasion after > 12000 cycles