

Technical data sheets

Technical characteristics of Cotto d'Este Laminated Porcelain Stoneware.

COMPLIANCE WITH EN 14411-G / ISO 13006-G

All the collections are in compliance with the regulations required for first quality products in Italy and Europe UNI EN 14411-G and internationally through ISO 13006-G.

QUALITY AND ENVIRONMENTAL CERTIFICATIONS

The conservation of the product characteristics is guaranteed by the Quality Management System put into practice by Panariagroup in its production sites and certified in accordance with UNI EN ISO 9001.

The collections are manufactured in production sites with UNI EN ISO 14001 certified Environmental Management Systems (internationally recognised standard) and EMAS (Regulation 1221/09 - eco-management and audit community system). The collections help meet the criteria for obtaining LEED credits. The products do not contain any VOC (volatile organic compounds). The type III specific Environmental Product Declaration (EPD), certified by an independent third party according to ISO EN 14025 and EN 15804 standards, is available. This certificate clearly states the environmental performances of the specific collections based on their Life Cycle Assessment (LCA).

ANTIMICROBIAL PROPERTIES

Thanks to Protect antimicrobial technology, the slabs from the majority of the Panariagroup collections have continuous, effective and durable protection against the proliferation of microbes, tested and certified in accordance with ISO 22196 and ASTM E3031. Refer to the specific collection catalogues.

THERMAL RESISTANCE CHARACTERISTICS

Thermal resistance is defined as the difficulty which heat encounters as it is transmitted through a material. This depends on the relationship between the thickness of the material and its thermal conductivity. The thermal resistance of 5PLUS laminated porcelain stoneware is 0.0042 m² K / W and of 6PLUS laminated stoneware is 0.0050 m² K / W.

COMMERCIAL DESCRIPTION OF THE PRODUCT

Collection	Refer to the specific collection catalogues.						
Colors	Refer to the specific collection catalogues.						
Sizes *	120x260 cm	120x120 cm	120x278 cm	100x300 cm	100x250 cm	100x100 cm	
	60x120 cm	60x60 cm	50x150 cm	50x100 cm	33x300 cm	30x240 cm	20x180 cm
Surfaces	Refer to the specific collection catalogues.						
Edges	Rectified						
Thicknesses	5plus laminated porcelain stoneware: 5.5 mm						
	6plus laminated porcelain stoneware: 6.5 mm						

* For size updates please refer to the specific collection catalogues.

TECHNICAL FEATURES	TEST METHOD	REQUIRED VALUES ISO 13006-G - EN 14411-G GRUPPO BIA UGL	AVERAGE VALUES 5plus - 6plus	
Water Absorption	ISO 10545-3	≤ 0,5%	0,1% (*)	
Modulus Of Rupture	ISO 10545-4	≥ 35 N/mm ²	50 N/mm ²	
Deep Abrasion Resistance	ISO 10545-6	≤ 175 mm ³	Compliant	
Thermal Conductivity	ISO 10545-8	No provision	$\alpha \leq 7 \times 10^{-6} \text{ } ^\circ\text{C}^{-1}$	
Thermal shock resistance	ISO 10545-9	No alteration	Resistant	
Chemical Resistance (**)	ISO 10545-13	As indicated by manufacturer	LA - HA Resistant LB - HB (Lux, Levigata Glossy, Touch)	
Stain Resistance	ISO 10545-14	Classe 3 min.	5 Resistant ≥ 3 (Lux, Levigata Glossy, Touch)	
Frost Resistance	ISO 10545-12	No alteration	Resistant	
Fire Reaction	EN 13823	CPR (UE) 305/2011, 2000/147/CE, UNI EN 13501-1	Classe A2-s1,d0 (wall)	
	EN 9239-1		Classe A2 _{fl} -s1 (floor)	
Dimensions	ISO 10545-2	Leght and Width	Rect: ± 0,3%, max ± 1 mm	Compliant
	ISO 10545-2	Straightness of sides	Rect: ± 0,3%, max ± 0,8 mm	Compliant
	ISO 10545-2	Rectangularity	Rect: ± 0,3%, max ± 1,5 mm	Compliant
	ISO 10545-2	Warpage	Rect: ± 0,4%, max ± 1,8 mm	Compliant
	ISO 10545-2	Thickness	± 5%, max ± 0,5 mm	Compliant

(*) Average value referred to ceramic material only
(**) Excluding hydrofluoric acid and its derivatives