

Technical characteristics Panariagroup 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.
Colours	Refer to the specific collection catalogues.
Sizes *	100x300 cm 100x150 cm 50x150 cm 100x100 cm 50x100 cm
Surfaces	Refer to the specific collection catalogues.
Edges	Rectified
Thickness	5plus laminated porcelain stoneware: 5.5 mm

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

TECHNICAL FEATURES	TEST METHOD	REQUIREMENTS ACCORDING TO ISO 13006-G - EN 14411-G GRUPPO BIA UGL	AVERAGE VALUES 5plus	
 Water absorption	ISO 10545-3	≤ 0,5%	0,1% (*)	
 Bending strength	ISO 10545-4	≥ 35 N/mm ²	50 N/mm ²	
 Deep abrasion resistance	ISO 10545-6	≤ 175 mm ³	Conforme	
 Linear thermal expansion	ISO 10545-8	Not required	$\alpha \leq 7 \times 10^{-6} \text{ } ^\circ\text{C}^{-1}$	
 Thermal shock resistance	ISO 10545-9	No alterations	Resistant	
 Chemical resistance (**)	ISO 10545-13	As indicated by the manufacturer	LA - HA Resistant LB - HB Lev - Touch	
 Stain resistance hie	ISO 10545-14	Classe 3 min.	5 Resistant ≥ 3 Lev - Touch	
 Frost-resistance	ISO 10545-12	No alterations	Resistant	
 Fire reaction	EN 13823 EN 9239-1	CPR (UE) 305/2011, 2000/147/CE, UNI EN 13501-1	Classe A2-s1,d0 (walls) Classe A2 _n -s1 (floor)	
 Size characteristics	Length and width	ISO 10545-2	Rect: ± 0,3%, max ± 1 mm	Compliant
	Straightness of sides	ISO 10545-2	Ret: ± 0,3%, max ± 0,8 mm	Compliant
	Rectangularity	ISO 10545-2	Ret: ± 0,3%, max ± 1,5 mm	Compliant
	Warpage	ISO 10545-2	Ret: ± 0,4%, max ± 1,8 mm	Compliant
	Thickness	ISO 10545-2	± 5%, max ± 0,5 mm	Compliant

(*) Value referred to ceramic material only

(**)Excluding hydrofluoric acid and derivatives