

## **? ?**

ß

THROUGH-BODY PORCELAIN TILE TECHNICAL FEATURES - COMPLIANT WITH STANDARDS EN 14411 (ISO 13006) ANNEX G GROUP BIa



Sizes	25x150 cm 9%"x59"	18,5x150 cm 7 ¼"x59"	15x90 cm 5¼"x35%"
	₩ 9mm	₩ 9mm	█ 9mm

			Test method	Requisites for nominal size N			Nid
		Technical features		7 cm ≤ N < 15 cm N ≥ 15 cm		.5 cm	Matte
				(mm)	(%)	(mm)	rectified
Regularity features		Length and width		± 0,9 (*) Non-rect. ± 0,4 (*) Rect.	± 0,6 (*) Non-rect. ± 0,3 (*) Rect.	± 2,0 (*) Non-rect. ± 1,0 (*) Rect.	Suitable for
		Thickness		± 0,5 (**)	± 5 (**)	± 0,5 (**)	Suitable for
		Straightness of sides		± 0,8 (***) Non-rect. ± 0,4 (***) Rect.	± 0,5 (***) Non-rect. ± 0,3 (***) Rect.	± 1,5 (***) Non-rect. ± 0,8 (***) Rect.	. Suitable for
		Perpendicularity (Measurement only on short edges when $L/l \ge 3$ )	ISO 10545-2	± 0,8 (***) Non-rect. ± 0,4 (***) Rect.	± 0,5 (***) Non-rect. ± 0,3 (***) Rect.	± 2,0 (***) Non-rect. ± 1,5 (***) Rect.	. Suitable for
				c.c. ± 0,8 Non-rect. c.c. ± 0,6 Rect.	c.c. ± 0,5 Non-rect. c.c. ± 0,4 Rect.	c.c. ± 2,0 Non-rect. c.c. ± 1,8 Rect.	Suitable for
		Surface flatness		e.c. ± 0,8 Non-rect. e.c. ± 0,6 Rect.	e.c. ± 0,5 Non-rect. e.c. ± 0,4 Rect.	e.c. ± 2,0 Non-rect. e.c. ± 1,8 Rect.	
				w. ± 0,8 Non-rect. w. ± 0,6 Rect.	w. ± 0,5 Non-rect. w. ± 0,4 Rect.	w. ± 2,0 Non-rect. w. ± 1,8 Rect.	
			ISO 10545-3	E≤ 0,5% Individual Maximum 0,6%			≤0.1%
Structural features		Water absorption level (in% by mass)	ASTM C373-18 Requirement ANSI A		A137.1-2017 Water Absorption Max < 0,5%		≤0.5%
		Breaking strenght	ISO 10545-4	S ≥ 700N (for thickness < 7,5mm) S ≥ 1300N (for thickness ≥ 7,5mm)			S≥1500 N
		Bending resistance	150 10545-4	R ≥ 35 N/mm²			R ≥40 N/mm²
Bulk mechanical features		Bending and breaking load resistance <sup>(4)(5)</sup>	EN 1339 Annex F	-			
		Impact resistance	ISO 10545-5	Declared value			≥0.55
Surface mechanical features		Mohs hardness	EN 101	EN 101 -			MOHS 6
		Deep abrasion resistance of unglazed tiles	ISO 10545-6	≤ 175 mm³			≤150mm³

\* Permitted deviation, in % or mm, from the average size of each tile (2 or 4 sides) with respect to the manufacturing size (W).

\*\* Permitted deviation, in % or mm, from the average thickness of each tile with respect to the cited manufacturing thickness (W).

\*\*\* Maximum permitted straightness deviation, in % or mm, with respect to the corresponding manufacturing sizes (W).

\*\*\*\* Maximum permitted perpendicularity deviation, in % or mm, with respect to the corresponding manufacturing sizes (W).

\*\*\*\* Maximum permitted centre curvature deviation, in % or mm, with respect to the diagonal calculated according to manufacturing sizes (W).

e.c. Maximum permitted corner curvature deviation, in % or mm, with respect to the corresponding manufacturing sizes (W).

w. Maximum permitted bending deviation, in % or mm, with respect to the diagonal calculated according to manufacturing sizes (W).

(1) Determining the slip resistance of pedestrian surfaces; not applicable to sports flooring or road traffic flooring.

(2) The anti-slip performance is guaranteed at the time of delivering the product.

(3) However, tiles with a DCOF of 0.42 or greater are not necessarily suitable for all projects. The specifier shall determine tiles appropriate for specific project conditions, considering by way of example, but not in limitation, type of use, traffic, expected contaminants, expected maintenance, expected wear, and manufacturers' guidelines and recommendations."
 (4) For further details, please refer to the outdoor design general catalogue.

(5) Only for products with 20 mm thickness



THROUGH-BODY PORCELAIN TILE TECHNICAL FEATURES - COMPLIANT WITH STANDARDS EN 14411 (ISO 13006) ANNEX G GROUP BIQ



5

R10

А

≥36Dry ≥36Wet

Class P3

C2 on demand

>0.40Asciutto >0.40Bagnato

> 0.42 Wet

Sizes		25x150 cm 9%"x59" ⊠ 9mm	18,5x150 cm 7 ⁄4"x59" ⊠ 9mm		15x90 cm 5%"x35%" ₩ 9mm				
	<b>T I I I I I I I I</b>		<b>T</b>	Requisites for nominal size N		N 45	Nid		
		Technical features	Test method	7 cm ≤ N < 15 cm			Matte rectified		
		Coefficient of linear thermal expansion	ISO 10545-8	(mm) (%) (mm) Declared value		≤7MK <sup>-1</sup>			
Thermo-igrometric features		Thermal shock resistance	ISO 10545-9	Test passed in accordance with ISO 10545-1		Resistant			
		Moisture expansion (in mm/m)	ISO 10545-10	Declared value		≤0.01% (0.1mm/m)			
		Frost resistance	ISO 10545-12	Test passed in accordance with ISO 10545-1		Resistant			
Physical propertie		Bond strenght	EN 1348	Declared value		≥1.0 N/mm² (Class C2 - EN 12004)			
		Reaction to fire	-	Class A1 or A1 <sub>fl</sub>		A1 - A1 <sub>fl</sub>			
		Resistance to household chemicals and swimming pool salts		Minimum B class		A			
	S	Resistance to low concentrations of acids and alkalis	ISO 10545-13	Declared class		LA			
Chemical features		Resistance to high concentrations of acids and alkalis		Declared class		HA			

Declared class

Declared class

Declared value

PTV ≥ 36 classifies the surface as "low slip risk"

Declared Classification of the new pedestrian surface materials according to the Pendulum Test

Declared value

Min. Dec. 236/89 of 14/06/89

 $\mu$  >0.40 for a sliding leather element on a dry  $_{\rm fl} {\rm oor}$ 

 $\mu$  >0.40 for a sliding hard rubber element on a wet  $_{fl}oor$  ANSI A.137.1-2017

Requires a minimum value of 0.42 for level interior space expected

to be walked upon when wet. (3)

ISO 10545-14

DIN 51130

DIN 51097

BS 7976

AS 4586

UNE-ENV 12633

UNE 41901:2017 EX

B.C.R.A. Rep. CEC/81

ANSI A.137.1

\* Permitted deviation, in % or mm, from the average size of each tile (2 or 4 sides) with respect to the manufacturing size (W).

\*\* Permitted deviation, in % or mm, from the average thickness of each tile with respect to the cited manufacturing thickness (W).

\*\*\* Maximum permitted straightness deviation, in % or mm, with respect to the corresponding manufacturing sizes (W).

\*\*\*\* Maximum permitted perpendicularity deviation, in % or mm, with respect to the corresponding manufacturing sizes (W).

\*\*\*\* Maximum permitted centre curvature deviation, in % or mm, with respect to the diagonal calculated according to manufacturing sizes (W).

e.c. Maximum permitted corner curvature deviation, in % or mm, with respect to the corresponding manufacturing sizes (W).

w. Maximum permitted bending deviation, in % or mm, with respect to the diagonal calculated according to manufacturing sizes (W).

(1) Determining the slip resistance of pedestrian surfaces; not applicable to sports flooring or road traffic flooring.

(2) The anti-slip performance is guaranteed at the time of delivering the product.

Stain resistance

Booted ramp test

Barefoot Ramp test

Pendulum friction Test

Coefficient of friction

Dynamic coefficent of friction (DCOF)

(3) However, tiles with a DCOF of 0.42 or greater are not necessarily suitable for all projects. The specifier shall determine tiles appropriate for specific project conditions, considering

by way of example, but not in limitation, type of use, traffic, expected contaminants, expected maintenance, expected wear, and manufacturers' guidelines and recommendations." (4) For further details, please refer to the outdoor design general catalogue.

(5) Only for products with 20 mm thickness

Safety

characteristics (1)(2)