

GRES PORCELLANATO TECHNICAL FEATURES - COMPLIANT WITH STANDARDS EN 14411 (ISO 13006) ANNEX G GROUP BIa



Sizes	60x120 cm 23%"x47 ⁄4"	60x60 cm 23%"x23%"	60x60 cm 23%"x23%"	30x60 cm 11¾"x23%"
	₩ 9mm	₩ 8mm	₩ 20mm	₩ 8mm
		1	1	

			Req	Flux						
		Technical features	Test method	7 cm ≤ N < 15 cm (mm)	N≥ 1 (%)	5 cm (mm)	Matte rectified 8mm	Matte rectified 9mm 60x120 cm	Grip rectified	Outdoor rectified
		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	Suitable for	Suitable for	Suitable for
		Thickness		± 0,5 (**)	± 5 (**) ± 0,5 (**)		Suitable for	Suitable for	Suitable for	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	Suitable for	Suitable for	Suitable for
Regularity features		Perpendicularity (Measurement only on short edges when L/I ≥ 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	Suitable for	Suitable for	Suitable for
		Surface flatness		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.				Not
				e.c. ± 0,8 Non-rect. e.c. ± 0,6 Rect.	e.c. ± 0,5 Non-rect. e.c. ± 0,4 Rect. e.c. ± 1,8 Rec			Suitable for	Suitable for	to "strong"
				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.				structures
			ISO 10545-3	E≤ 0,59	≤0.1%	≤0.1%	≤0.1%	≤0.1%		
Structural features		Water absorption level (in% by mass)	ASTM C373-18	Requirement ANSI	≤0.5%	≤0.5%	≤0.5%	≤0.5%		
		Breaking strenght	ISO 10545-4	S≥70 S≥13	S≥1500 N	S≥1500 N	S≥1500 N	S≥10000 N		
Bulk		Bending resistance	130 10345-4		R ≥40 N/mm²	R ≥40 N/mm²	R ≥40 N/mm²	R ≥45 N/mm²		
mechanical features		Bending and breaking load resistance <sup>(4)(5)</sup>	EN 1339 Annex F		-				≥T11 60×60	
		Impact resistance	ISO 10545-5		Declared value	≥0.55	≥0.55	≥0.55	≥0.55	
Surface mechanical features		Deep abrasion resistance of unglazed tiles	ISO 10545-6	≤ 175 mm³ ≤150mm³					≤150mm³	≤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



60x120 cm 225/ "x47 //"

GRES PORCELLANATO TECHNICAL FEATURES - COMPLIANT WITH STANDARDS EN 14411 (ISO 13006) ANNEX G GROUP BIQ

60x60 cm 225/ "v225/"

60v60 cm 225/ "v225/"



20x60 cm 1134"x2254"

Sizes	zes 60x120 cm 23%"x47 /4" ₩ 9mm		60x60 cm	60x60 cm 23%"x23%" ₩ 8mm		60x60 cm 23%"x23%" ₩ 20mm			30x60 cm 11¾"x23%" ₩ 8mm			
				Requisites for nominal size N		Flux						
		Technical features	Test method	7 cm ≤ N < 15 cm (mm)	N ≥ (%)	15 cm (mm)	Matte rectified 8mm	Matte rectified 9mm 60x120 cm	Grip rectified	Outdoor rectified		
		Coefficient of linear thermal expansion	ISO 10545-8	Declared value			≤7MK <sup>-1</sup>	≤7MK <sup>-1</sup>	≤7MK <sup>-1</sup>	≤7MK <sup>-1</sup>		
Thermo- igrometric features		Thermal shock resistance	ISO 10545-9	Test passed in accordance with ISO 10545-1			Resistant	Resistant	Resistant	Resistant		
		Moisture expansion (in mm/m)	ISO 10545-10	Declared value			≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)		
		Frost resistance	ISO 10545-12	Test passed in accordance with ISO 10545-1			Resistant	Resistant	Resistant	Resistant		
Physical		Bond strenght	EN 1348	Declared value			≥1.0 N/mm² (Class C2 - EN 12004)					
properties		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			А	А	А	А		
Chemical		Resistance to low concentrations of acids and alkalis	ISO 10545-13	Declared class			LA	LA	LA	LA		
features		Resistance to high concentrations of acids and alkalis		Declared c	ed class		HA	HA	HA	HA		
		Stain resistance	ISO 10545-14	Declared class			5	5	5	5		
		Booted ramp test	DIN EN 16165 ANNEX B (EX DIN 51130)	Declared class			R10	R10	R11	R11		
		Barefoot Ramp test	DIN EN 16165 ANNEX A (EX DIN 51097)	Declared value			A+B	A+B	A+B+C	A+B+C		
	s 🖉		BS EN 16165 ANNEX C (EX BS 7976)	PTV $\geq$ 36 classifies the surface as "low slip risk"		≥36Dry ≥36Wet	≥36Dry ≥36Wet	≥36Dry ≥36Wet	≥36Dry ≥36Wet			
Safety characteristics (1)(2)		Pendulum friction Test	AS 4586	Declared Classification of the new pedestrian surface materials according to the Pendulum Test		Class P3	Class P3	Class P4	Class P4			
			UNE 41901 EX:2017	Declared value			Class C2	Class C2	Class C3	Class C3		
		Coefficient of friction	B.C.R.A. Rep. CEC/81	μ >0.40 for a sliding leath <sub>fl</sub> oor μ >0.40 for a sliding hard r	$\begin{array}{l} \mbox{Min. Dec. 236/89 of 14/06/89} \\ \mu \mbox{>0.40 for a sliding leather element on a dry} \\ floor \\ \mu \mbox{>0.40 for a sliding hard rubber element on a} \\ \mbox{wet}_{floor} \end{array}$			>0.40Asciutto >0.40Bagnato	>0.40Asciutto >0.40Bagnato	>0.40Asciutto >0.40Bagnato		
		Dynamic coefficent of friction (DCOF)	ANSI A 326.3	-			Wet DCOF ≥ 0.50	Wet DCOF ≥ 0.50	Wet DCOF≥ 0.55	Wet DCOF ≥ 0.55		

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