

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



Sizes	75x150 cm 29 ⁄z"x59"	75x75 cm 29 ⁄2"x29 ⁄2"	60x60 cm 23%"x23%"	30x60 cm 11¾"x23%"
	₩ 9mm	▇ 9mm	▇ 9mm	▇ 9mm

	[Test method	Requisites for nominal size N			Ko	one
		Technical features		7 cm ≤ N < 15 cm	$7 \text{ cm} \le \text{N} < 15 \text{ cm}$ $\text{N} \ge 15 \text{ cm}$		Matte	Grip
				(mm)	(%)	(mm)	rectified	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
	(1) (1)	Thickness		± 0,5 (**)	± 5 (**) ± 0,5 (**)		Suitable for	Suitable for
	A P	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
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
	\frown			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.	Suitable for	
				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	≤0.1%	≤0.1%		
Structural features		Water absorption level (in% by mass)	ASTM C373-18	Requirement ANSI A137.1-2017 Water Absorption Max < 0,5%			≤0.5%	≤0.5%
		Breaking strenght	ISO 10545-4	S ≥ 700N (for thickness < 7,5mm) S ≥ 1300N (for thickness ≥ 7,5mm)			S≥1500 N	S≥1500 N
Bulk mechanical		Bending resistance	130 10545-4		R ≥40 N/mm²	R ≥40 N/mm²		
features		Bending and breaking load resistance ⁽⁴⁾⁽⁵⁾	EN 1339 Annex F	-				
		Impact resistance	ISO 10545-5	Declared value		≥0.55	≥0.55	
Surface mechanical features		Deep abrasion resistance of unglazed tiles	ISO 10545-6	≤ 175 mm³		≤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.

 $\ensuremath{\left(2\right)}$ 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



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



Sizes	75x150 cm 29 ⁄2"x59" ▇ 9mm		75x75 cm 29 ⁄2"x29 ⁄2" ▇ 9mm	2" 60x60 cm 23%"x23%"		30x60 cm 11¾"x235%" ▇ 9mm			
				Requisites for nomin	nal size N		Kone		
		Technical features	Test method	7 cm ≤ N < 15 cm	N i	≥ 15 cm	Matte rectified	Grip rectified	
				(mm)	(%)	(mm)	Mutterectineu	Grip recurred	
		Coefficient of linear thermal expansion	I ISO 10545-8	Declared val	Declared value		≤7MK ⁻¹	≤7MK ⁻¹	
Thermo- igrometric) Thermal shock resistance	ISO 10545-9	Test passed in accordance with ISO 10545-1		Resistant	Resistant		
features) Moisture expansion (in mm/m	n) ISO 10545-10	Declared value		≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)		
	A A A A A A A A A A A A A A A A A A A) Frost resistance	ISO 10545-12	Test passed in accordance with ISO 10545-1		Resistant	Resistant		
Physical		Bond strenght	EN 1348	Declared value		≥1.0 N/mm² (Class C2 - EN 12004)	≥1.0 N/mm² (Class C2 - EN 12004)		
properties	;) Reaction to fire	-	Class A1 or A1 _{fl}		A1 - A1 _{fl}	A1 - A1 _{fl}		
		Resistance to household chemic and swimming pool salts	cals	Minimum B class			А	A	
		Resistance to low concentration acids and alkalis	ISO 10545-13	Declared class			LA	LA	
Chemical features		Resistance to high concentration acids and alkalis	is of	Declared cla	Declared class			HA	
) Stain resistance	ISO 10545-14	Declared class		Declared class		5	
		Booted ramp test	DIN EN 16165 ANNEX B (EX DIN 51130)	Declared cla	Declared class		R10	R11	
		Barefoot Ramp test	DIN EN 16165 ANNEX A (EX DIN 51097)	Declared value	ue		А	A+B	
Safety	\mathcal{P}		BS EN 16165 ANNEX C (EX BS 7976)	$PTV \ge 36$ classifies the surface as "low slip risk"		≥36Dry ≥36Wet	≥36Dry ≥36Wet		
characterist (1)(2)	ics	Pendulum friction Test	AS 4586	Declared Classification of the new pedestrian surface materials according to the Pendulum Test		Class P3	Class P4		
			UNE 41901 EX:2017	Declared value			C2 on demand	Class C3	
		Coefficient of friction	B.C.R.A. Rep. CEC/81	Min. Dec. 236/89 of μ >0.40 for a sliding leather ele μ >0.40 for a sliding hard rubber	lement on o		>0.40Asciutto >0.40Bagnato	>0.40Asciutto >0.40Bagnato	
		Dynamic coefficent of friction (DCOF)	n ANSI A 326.3	-			Wet DCOF ≥ 0.42	Wet DCOF ≥ 0.55	

* 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