

## TECHNICAL SHEET PSO RLSO GALERAS GRIS 45X45 EXT 2.03

EVALUATED CHARACTERISTICS	TEST METHOD	NORM ISO 13006 REQUIREMENTS (BIIb)	RESULT	CONCLUSION
	DIMENSIONS AND SURFACE QUALITY			
* Length and Width, mm  Manufacturing Size: 451.0 mm			(%) (mm)	
Average Size: 452.1 mm  * Thickness, mm	ISO 10545-2	± 0.6%; ± 2.0mm	0.24 1.10	Comply
Manufacturing: 7.5 mm Average result: 7.6 mm	ISO 10545-2	± 5.0%; ± 0.5mm	1.33 0.10	Comply
* Straightness of sides, %	ISO 10545-2	± 0.5%; ± 1.5mm	0.04 0.20	Comply
* Rectangularity, % * Surface flatness	ISO 10545-2	± 0.5%; ± 2.0mm	-0.11 -0.50	Comply
Edge curvature, %		± 0.5%; ± 2.0mm	0.18 0.00 0.80 0.00	Comply
Centre curvature, %	ISO 10545-2	± 0.5%; ± 2.0mm	0.20 0.00 1.30 0.00	Comply
Warpage, %	ISO 10545-2	± 0.5%; ± 2.0mm	0.16 -0.03 1.00 -0.20	Comply
* Surface quality, %	ISO 10545-2	A minimum of 95 % of the tiles are to be free from visible defects which can impair the appearance of a major area of tiles	98.1%	Comply
	PHY	SICAL PROPERTIES		
	I			
* Water absorption (E <sub>v</sub> ), %	ISO 10545-3	6 % < E <sub>v</sub> ≤ 10 % Individual maximum 11 %	7.2 7.3	Comply Comply
* Breaking strength, N (Thickness ≥ 7.5 mm)	ISO 10545-4	Not less than 800	1012	Comply
* Modulus of rupture, N/mm <sup>2</sup>	ISO 10545-4	Minimum 18	30	Comply
* Abrasion resistance - CU	ISO 10545-7	Individual minimum 16 Report abrasion class and cycles passed	29 Class 3 Cycles 1500	Comply -
* Crazing resistance	ISO 10545-11	Required	No crazing	Comply
	CHE	MICAL PROPERTIES		
* Posistance to staining				
* Resistance to staining - Green Oxide	ISO 10545-14	Minimum class 3	Class 5	Comply
- lodo	ISO 10545-14	Minimum class 3	Class 5	Comply
- Olive oil	ISO 10545-14	Minimum class 3	Class 5	Comply
* Resistance to low concentrations of acids and alkalis	100 10043-14	Will ill Class 3	Oldos J	Сотгріу
<ul><li>3% Hydrochloric Acid (V / V)</li><li>Potassium hydroxide, 30 g / I</li></ul>		Manufacturer is to state classification	LB LA	- -
* Resistance to high concentrations of acids and alkalis	ISO 10545-13		LID	
<ul> <li>18% Hydrochloric Acid (V / V)</li> <li>Potassium hydroxide, 100 g / I</li> <li>* Resistance to household chemicals and swimming pool salts</li> </ul>		Test method available	HB HA	- -
Ammonium Chloride 100 g / I     Sodium hypochlorite, 20 mg / I	ISO 10545-13	Minimum B	A A	Comply Comply

Requirements verified as indicated in the INTERNATIONAL STANDARD, ISO 13006

Dry-pressed ceramic tiles 6 % <  $E_v \le 10$  % Group  $BII_b$ 

The weight, tone and dimensions are subject to some of the inevitable variations typical of ceramic firing processes.

DATE OF ISSUE	Thursday, September 30, 2021
Prepared by: Quality Supervisor	Reviewed by: Manager Quality Assurance
César Prado R.	Marlene Chauca R.

<sup>&</sup>quot;Ceramic Tiles - Definitions, Classification, Characteristics and marking", Annex k (normative), Table k,1.



## TECHNICAL SHEET PSO RLSO GALERAS HUESO 45X45 EXT 2.03

EVALUATED CHARACTERISTICS	TEST METHOD	NORM ISO 13006 REQUIREMENTS (BIIb)	RESULT	CONCLUSION
	DIMENSION	S AND SURFACE QUALITY	Y	
* Length and Width, mm			(%) (mm)	
Manufacturing Size: 451.0 mm			(70)	
Average Size: 452.6 mm	ISO 10545-2	± 0.6%; ± 2.0mm	0.35 1.60	Comply
* Thickness, mm		1 0.0%, 1 2.011111	0.55	Comply
Manufacturing: 7.5 mm				
Average result: 7.7 mm	ISO 10545-2	± 5.0%; ± 0.5mm	2.67 0.20	Comply
* Straightness of sides, %	ISO 10545-2	± 0.5%; ± 1.5mm	0.07 0.30	Comply
* Rectangularity, %	ISO 10545-2	± 0.5%; ± 2.0mm	-0.11 -0.50	Comply
* Surface flatness	130 10343-2	± 0.3%, ± 2.011111	-0.11 -0.30	Comply
		± 0.5%; ± 2.0mm	0.18 0.00 0.80 0.00	Comply
Edge curvature, %	ISO 10545-2	± 0.5%; ± 2.0mm	0.18 0.00 0.80 0.00	Comply
Centre curvature, %	ISO 10545-2	· ·	0.13 0.00 0.80 0.00	Comply
Warpage, %	130 10343-2	± 0.5%; ± 2.0mm	0.13 0.00 0.80 0.00	Comply
		A minimum of 95 % of the tiles are		
* Surface quality, %	ISO 10545-2	to be free from visible defects which can impair the appearance of a	97.6%	Comply
		major area of tiles		
		,		
	PHY	SICAL PROPERTIES		
* Water absorption (E <sub>v</sub> ), %	ISO 10545-3	6 % < E <sub>v</sub> ≤ 10 %	7.6	Comply
Water absorption (L <sub>V</sub> ), %	130 10343-3	Individual maximum 11 %	7.8	Comply
* Breaking strength, N	ISO 10545-4	individual maximum 11 /6	7.0	Comply
(Thickness ≥ 7.5 mm)	100 10040 4	Not less than 800	952	Comply
* Modulus of rupture, N/mm <sup>2</sup>	ISO 10545-4	Minimum 18	27	Comply
Modulate of rapidite, 14/11111		Individual minimum 16	25	Comply
* Abrasion resistance - CU	ISO 10545-7	Report abrasion class and cycles	Class 3	
		passed	Cycles 1500	-
* Crazing resistance	ISO 10545-11	Required	No crazing	Comply
<u> </u>			-	
	CHE	MICAL PROPERTIES		
* Resistance to staining				
- Green Oxide	ISO 10545-14	Minimum class 3	Class 5	Comply
- lodo	ISO 10545-14	Minimum class 3	Class 5	Comply
- Olive oil	ISO 10545-14	Minimum class 3	Class 5	Comply
* Resistance to low concentrations of acids				
and alkalis				
- 3% Hydrochloric Acid (V / V)		Manufacturer is to state	LB	-
- Potassium hydroxide, 30 g / I		classification	LA	-
* Resistance to high concentrations of acids	ISO 10545-13			
and alkalis				
- 18% Hydrochloric Acid (V / V)		Took mostly of a conflict.	НВ	-
- Potassium hydroxide, 100 g / l		Test method available	HA	-
* Resistance to household chemicals and				
swimming pool salts				
- Ammonium Chloride 100 g / I			А	Comply
- Sodium hypochlorite, 20 mg / I	ISO 10545-13	Minimum B	А	Comply
				, ,

Requirements verified as indicated in the INTERNATIONAL STANDARD, ISO 13006

"Ceramic Tiles - Definitions, Classification, Characteristics and marking", Annex k (normative), Table k,1.

Dry-pressed ceramic tiles 6 % <  $E_v \le 10$  % Group  $BII_b$ 

The weight, tone and dimensions are subject to some of the inevitable variations typical of ceramic firing processes.

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## TECHNICAL SHEET PSO RLSO GALERAS GRIS 30X60 EXT 1.62

* Length and Width, mm  Manufacturing length:  Average length:  Manufacturing width:  Ma	RESU	JLT	CONCLUSION			
* Length and Width, mm  Manufacturing length: 600.0 mm  Average length: 598.4 mm  Manufacturing width: 300.0 mm						
* Length and Width, mm  Manufacturing length: 600.0 mm  Average length: 598.4 mm  Manufacturing width: 300.0 mm	(9/)					
Manufacturing length: 600.0 mm  Average length: 598.4 mm  Manufacturing width: 300.0 mm	(0/)					
Manufacturing length: 600.0 mm  Average length: 598.4 mm  Manufacturing width: 300.0 mm		(mm)				
Average length: 598.4 mm	(70)	()				
Manufacturing width: 300.0 mm	-0.27	-1.60	Comply			
Average width: 299.1 mm   ISO 10545-2   ± 0.6%; ± 2.0mm	-0.31	-0.92	Comply			
* Thickness, mm						
Manufacturing: 9.0 mm						
Average result: 9.1 mm ISO 10545-2 ± 5.0%; ± 0.5mm	0.78	0.07	Comply			
* Straightness of sides, % ISO 10545-2 ± 0.5%; ± 1.5mm	0.12	0.70	Comply			
* Rectangularity, % ISO 10545-2 ± 0.5%; ± 2.0mm	-0.13	-0.80	Comply			
* Surface flatness						
Edge curvature, %						
Length: ± 0.5%; ± 2.0mm 0.1	17 0.00	1.00 0.00	Comply			
Width: $\pm 0.5\%$ ; $\pm 2.0$ mm 0.0		0.20 0.00	Comply			
,		1.20 0.00	Comply			
Warpage, % ISO 10545-2 ± 0.5%; ± 2.0mm 0.0	09 -0.04	0.60 -0.30	Comply			
A minimum of 95 % of the tiles are						
* Surface quality, % ISO 10545-2 to be free from visible defects which	97.6	5%	Comply			
can impair the appearance of a major area of tiles			1,7			
major area or tries						
PHYSICAL PROPERTIES						
* Water absorption (E <sub>v</sub> ), % ISO 10545-3 6 % < E <sub>v</sub> ≤ 10 %	7.6	3	Comply			
Individual maximum 11 %	7.8		Comply			
* Breaking strength N ISO 10545-4						
(Thickness ≥ 7.5 mm)  Not less than 800	146	9	Comply			
* Modulus of rupture, N/mm <sup>2</sup> ISO 10545-4 Minimum 18	32		Comply			
Individual minimum 16	30		Comply			
* Abrasion resistance - CU ISO 10545-7 Report abrasion class and cycles passed	Class	3	-			
	Cycles					
* Crazing resistance ISO 10545-11 Required	No cra	azıng	Comply			
CHEMICAL PROPERTIES						
* Resistance to staining						
- Green Oxide ISO 10545-14 Minimum class 3	Class	5	Comply			
- Iodo ISO 10545-14 Minimum class 3	Class	5	Comply			
- Olive oil ISO 10545-14 Minimum class 3	Class	5	Comply			
* Resistance to low concentrations of acids						
and alkalis						
- 3% Hydrochloric Acid (V / V) Manufacturer is to state	LB	3	-			
- Potassium hydroxide, 30 g / I classification	LA	<b>\</b>	-			
* Resistance to high concentrations of acids ISO 10545-13						
and alkalis						
- 18% Hydrochloric Acid (V / V)  Test method available	HB		-			
- Potassium hydroxide, 100 g / l	HA	4	-			
* Resistance to household chemicals and						
swimming pool salts			_			
- Ammonium Chloride 100 g / l ISO 10545-13 Minimum B	A		Comply			
- Sodium hypochlorite, 20 mg / l	Α		Comply			

Requirements verified as indicated in the INTERNATIONAL STANDARD, ISO 13006

"Ceramic Tiles - Definitions, Classification, Characteristics and marking", Annex k (normative), Table k,1.

Dry-pressed ceramic tiles 6 %  $< E_v \le 10$  % Group BII<sub>b</sub>

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