

## TECHNICAL SHEET PSO MAD. DALLAS PLUS BEIGE 45X45 EXT 2.03

Quality assurance										
EVALUATED CHARACTERISTICS	TEST METHOD		NORM ISO 13006 REQUIREMENTS (BIIb)	RESULT		CONCLUSION				
DIMENSIONS AND SURFACE QUALITY										
<ul> <li>* Length and Width, mm</li> <li>Manufacturing Size: 451.0 mm</li> <li>Average Size: 451.5 mm</li> <li>* Thickness, mm</li> </ul>	ISO 10545-2		± 0.6%; ± 2.0mm	<b>(%)</b> 0.11	<b>(mm)</b> 0.51	Comply				
Manufacturing: 7.5 mm Average result: 7.6 mm * Straightness of sides, % * Rectangularity, % * Surface flatness	ISO 10545-2 ISO 10545-2 ISO 10545-2		± 5.0%; ± 0.5mm ± 0.5%; ± 1.5mm ± 0.5%; ± 2.0mm	1.79 0.05 -0.18	0.13 0.24 -0.79	Comply Comply Comply				
Edge curvature, % Centre curvature, % Warpage, %	ISO 10545-2 ISO 10545-2		± 0.5%; ± 2.0mm ± 0.5%; ± 2.0mm ± 0.5%; ± 2.0mm	0.20 0.0 0.12 0.0 0.11 -0.1	0 0.76 0.00	Comply Comply Comply				
* Surface quality, %	ISO 10545-2	be free	um of 95 % of the tiles are to from visible defects which ir the appearance of a major area of tiles	97.0%		Comply				
PHYSICAL PROPERTIES										
* Water absorption (E <sub>v</sub> ), %	ISO 10545-3		6 % < E <sub>v</sub> ≤ 10 % ividual maximum 11 %	6.5 6.6		Comply Comply				
<ul> <li>* Breaking strength, N (Thickness ≥ 7.5 mm)</li> </ul>	ISO 10545-4		Not less than 800	872		Comply				
* Modulus of rupture, N/mm <sup>2</sup>	ISO 10545-4		Minimum 18 ndividual minimum 16	29 28		Comply Comply				
* Abrasion resistance - CU	ISO 10545-7	Report	abrasion class and cycles passed	Class 3 Cycles 1500		-				
* Crazing resistance	ISO 10545-11		Required		o crazing	Comply				
	CHE	MICAL	PROPERTIES							
<ul> <li>* Resistance to staining         <ul> <li>Green Oxide</li> <li>Iodo</li> <li>Olive oil</li> </ul> </li> <li>* Resistance to low concentrations of acids</li> </ul>	ISO 10545-14 ISO 10545-14 ISO 10545-14		Minimum class 3 Minimum class 3 Minimum class 3	Cla Cla Cla	ss 5	Comply Comply Comply				
and alkalis - 3% Hydrochloric Acid (V / V) - Potassium hydroxide, 30 g / I * Resistance to high concentrations of acids	ISO 10545-13	Manufac	turer is to state classification		LA LA	-				
<ul> <li>and alkalis</li> <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			HA HA	-				
<ul> <li>Ammonium Chloride 100 g / I</li> <li>Sodium hypochlorite, 20 mg / I</li> </ul>	ISO 10545-13	Minimum B			A A	Comply Comply				
Requirements verified as indicated in "Ceramic Tiles - Definitions, Classific Dry-pressed ceramic tiles 6 % < $E_v \le$ The weight, tone and dimensions are	ation, Characterist 10 % Group BII <sub>b</sub>	ics and ma	arking", Annex k (normative),		cesses.					
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Prepared by: Quality Supervisor			Reviewed by: Manager Quality Assurance							
Elio Baldera Chapoñan			Marlene Chauca R.							



## TECHNICAL SHEET PSO MAD. DALLAS PLUS CARAMELO 45X45 EXT 2.03

Quality assurance										
EVALUATED CHARACTERISTICS	TEST METHOD	NORM ISO 13006 REQUIREMENTS (BIIb)	RESULT	CONCLUSION						
DIMENSIONS AND SURFACE QUALITY										
* Length and Width, mm Manufacturing Size: 451.0 mm Average Size: 451.3 mm	ISO 10545-2	± 0.6%; ± 2.0mm	<b>(%) (mm)</b> 0.06 0.26	Comply						
<ul> <li>* Thickness, mm Manufacturing: 7.5 mm Average result: 7.9 mm</li> <li>* Straightness of sides, %</li> <li>* Rectangularity, %</li> <li>* Surface flatness</li> </ul>	ISO 10545-2 ISO 10545-2 ISO 10545-2	± 5.0%; ± 0.5mm ± 0.5%; ± 1.5mm ± 0.5%; ± 2.0mm	4.870.370.060.270.200.90	Comply Comply Comply						
Edge curvature, % Centre curvature, % Warpage, %	ISO 10545-2 ISO 10545-2	$\pm 0.5\%; \pm 2.0mm$ $\pm 0.5\%; \pm 2.0mm$ $\pm 0.5\%; \pm 2.0mm$ A minimum of 95 % of the tiles are to	0.13 0.00 0.60 0.00 0.14 -0.03 0.89 -0.17 0.14 -0.05 0.90 -0.31	Comply Comply Comply						
* Surface quality, %	ISO 10545-2	be free from visible defects which can impair the appearance of a major area of tiles	98.0%	Comply						
PHYSICAL PROPERTIES										
* Water absorption (E <sub>v</sub> ), %	ISO 10545-3	6 % < E <sub>v</sub> ≤ 10 % Individual maximum 11 %	7.3 7.9	Comply Comply						
* Breaking strength, N (Thickness ≥ 7.5 mm)	ISO 10545-4	Not less than 800	884	Comply						
* Modulus of rupture, N/mm <sup>2</sup>	ISO 10545-4	Minimum 18 Individual minimum 16	29 28	Comply Comply						
* Abrasion resistance - CU	ISO 10545-7	Report abrasion class and cycles passed	Class 2 Cycles 600	-						
* Crazing resistance	ISO 10545-11	Required	No crazing	Comply						
	CHE	MICAL PROPERTIES								
<ul> <li>Resistance to staining</li> <li>Green Oxide</li> <li>Iodo</li> <li>Olive oil</li> <li>Resistance to low concentrations of acids</li> </ul>	ISO 10545-14 ISO 10545-14 ISO 10545-14	Minimum class 3 Minimum class 3 Minimum class 3	Class 5 Class 5 Class 5	Comply Comply Comply						
<ul> <li>and alkalis</li> <li>3% Hydrochloric Acid (V / V)</li> <li>Potassium hydroxide, 30 g / I</li> <li>* Resistance to high concentrations of acids and alkalis</li> </ul>	ISO 10545-13	Manufacturer is to state classification	LA LA	-						
<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	HA HA	-						
<ul> <li>Ammonium Chloride 100 g / I</li> <li>Sodium hypochlorite, 20 mg / I</li> </ul>	ISO 10545-13	Minimum B	A A	Comply Comply						
Dry-pressed ceramic tiles 6 % < $E_v \le$	ation, Characterist 10 % Group BII <sub>b</sub>	NAL STANDARD, ISO 13006 ics and marking", Annex k (normative), f the inevitable variations typical of cera								
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Prepared by: Quality Supe	Reviewed	Reviewed by: Manager Quality Assurance								
Elio Baldera Chapoña		Marlene Chauca R.								