

























# SEMI PRECIOUS AGATA COLLECTION



COLOURED BODY PORCELAIN TILES  
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 Compliant with EN 14411 (ISO 13006) Appendix G group B1a  
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Sizes	120x278 cm	120x240 cm	75x150 cm	120x120 cm	45x90 cm	75x75 cm	60x60 cm	30x60 cm
Size	47 1/4"x109 1/2"	47 1/4"x94 1/2"	29 1/2"x59"	47 1/4"x47 1/4"	17 3/4"x35 3/8"	29 1/2"x29 1/2"	23 5/8"x23 5/8"	11 3/4"x23 5/8"
Thickness	± 6mm	± 9mm	± 9.5mm	± 9mm	± 9mm	± 9.5mm	± 9mm	± 9mm

TECHNICAL FEATURES / TECHNICAL FEATURES				Requirements for nominal size N			Polished		Matt		
				Requirements for nominal size N		Requirements for nominal size N					
				7 cm ≤ N < 15 cm	N ≥ 15 cm						
				(mm)	(%)	(mm)					
Regularity characteristics	 <b>Length and width</b> Length and width <b>Thickness</b> Thickness <b>Straightness of sides</b> Straightness of sides <b>Rectangularity (Measurement only on short edges when LA ≥ 3)</b> Rectangularity (Measurement only on short edges when LA ≥ 3)	ISO 10545-2	± 0.9 (*)	± 0.6 (*)	± 2.0 (*)	±0.3% ±1.0mm	±0.3% ±1.0mm				
			± 0.5 (**)	± 5 (**)	± 0.5 (**)	±5.0% ±0.5mm	±5.0% ±0.5mm				
			± 0.75 (***)	± 0.5 (***)	± 1.5 (***)	±0.3% ±0.8mm	±0.3% ±0.8mm				
			± 0.75 (****)	± 0.5 (****)	± 2.0 (****)	±0.3% ±1.5mm	±0.3% ±1.5mm				
	 <b>Surface flatness</b> Surface flatness			c.c. ± 0,75	c.c. ± 0,5	c.c. ± 2,0	±0.3% ±1.5mm	±0.3% ±1.5mm			
				EN 14411 annex G (Group B1a) EN 14411 annex G (Group B1a)		ISO 13006 annex G (Group B1a) ISO 13006 annex G (Group B1a)					
Structural features	 <b>Water absorption level (in% by mass)</b> Water absorption level (in% by mass)	ISO 10545-3	E <sub>ab</sub> ≤ 0.5% Individual max 0.6% E <sub>ab</sub> ≤ 0.5% Valore max singolo 0.6%			≤0.1%	≤0.1%				
Bulk mechanical features	 <b>Breaking strength</b> Breaking strength	ISO 10545-4	S ≥ 1300 N			S ≥1500 N	S ≥1500 N				
	 <b>Modulus of Rupture</b> Modulus of Rupture		R ≥ 35 N/mm <sup>2</sup>			R ≥40 N/mm <sup>2</sup>	R ≥40 N/mm <sup>2</sup>				
Surface mechanical features	 <b>Impact resistance, as coefficient of restitution</b> Impact resistance, as coefficient of restitution	ISO 10545-5	Declared value	Test method available		≥0.55	≥0.55				
	 <b>Mohs hardness</b> Mohs hardness	EN 101 <sup>(1)</sup>	-			MOHS 5	MOHS 6				
Thermo-igrometric features	 <b>Coefficient of linear thermal expansion</b> Coefficient of linear thermal expansion	ISO 10545-8	Declared value	Test method available		≤7.1/mk	≤7.1/mk				
	 <b>Thermal shock resistance</b> Thermal shock resistance	ISO 10545-9	Pass according to EN ISO 10545-1		Test method available		Resiste	Resiste			
	 <b>Moisture expansion (in mm/m)</b> Moisture expansion (in mm/m)	ISO 10545-10	Declared value	Test method available		≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)				
	 <b>Frost resistance</b> Frost resistance	ISO 10545-12	Pass according to EN ISO 10545-1		Required		Resiste	Resiste			
Physical properties	 <b>Bond strength/adhesion for improved cementitious adhesives</b> Bond strength/adhesion for improved cementitious adhesives	EN 1348	Declared value	-		≥1.0 N/mm <sup>2</sup> (Class C2 - EN 12004)	≥1.0 N/mm <sup>2</sup> (Class C2 - EN 12004)				
	 <b>Reaction to fire</b> Reaction to fire	-	Class A1 or A1 <sub>fl</sub>		-		A1 - A1 <sub>fl</sub>	A1 - A1 <sub>fl</sub>			
Chemical features	 <b>Resistance to household chemicals and swimming pool salts</b> Resistance to household chemicals and swimming pool salts	ISO 10545-13	Minimum Class B (UB for unglazed tiles)				UA	UA			
	 <b>Resistance to low concentrations of acids and alkalis</b> Resistance to low concentrations of acids and alkalis		Declare a class	Manufacturer is to state/classification		ULA	ULA				
	 <b>Resistance to high concentrations of acids and alkalis</b> Resistance to high concentrations of acids and alkalis		Declare a class	Test method available		0	UHA				
	 <b>Resistance to staining for glazed tiles</b> Resistance to staining for glazed tiles	ISO 10545-14	Declare a class	Test method available		S	S				
Safety characteristics	 <b>Barefoot Ramp Test</b> Barefoot Ramp Test	DIN 51097	Declared value	-		0	A				
	 <b>Shod Ramp Test</b> Shod Ramp Test	DIN 51130	Declared value	-		NC	R9				
	 <b>Pendulum Friction Test</b> Pendulum Friction Test	UNE-ENV 12633 BS 7976-2002	Declared value	-		Class 0	Class 1				
Safety characteristics	 <b>Coefficient of friction (COF)</b> Coefficient of friction (COF)	B.C.R.A. Rep. CEC/81	D. M. 236/89 del 14/06/89 μ >0.40 per elemento scivolante cuoio su pavimentazione asciutta μ >0.40 per elemento scivolante gomma dura su pavimentazione bagnata				>0.40Asciutto >0.40Bagnato	>0.40Asciutto >0.40Bagnato			
	 <b>Dynamic coefficient of friction (DCOF)</b> Dynamic coefficient of friction (DCOF)	ANSI A137.1 - 2012	ANSI A.137.1 Requires a minimum value of 0.42 for commercial areas that are likely to be wet.				<0.42Wet	<0.42Wet			
	 <b>Static Coefficient of Friction</b> Static Coefficient of Friction	ASTM C1028 - 2007	The Ceramic Tiles Institute Identifies Tile Slip Resistant when SCOF ≥ 0.60				≥0.60Dry 0.50/0.60Wet	≥0.60Dry 0.50/0.60Wet			
	 <b>Pendulum Friction Test</b> Pendulum Friction Test	AS/NZS 4586 - 2013	Declared Classification of the pedestrian surface materials according to the Wet Pendulum Test				Class P3 on demand	Class P3 on demand			

(\*) The permissible deviation, in % or mm, of the average size for each tile (2 or 4 sides) from work size (W).  
 (\*\*) The permissible deviation, in % or mm, of the average thickness for each tile from the work size thickness (W).  
 (\*\*\*) The maximum permissible deviation from straightness, in % or mm, related to the corresponding work sizes (W).  
 (\*\*\*\*) The maximum permissible deviation from rectangularity, in % or mm, related to the corresponding work sizes (W).  
 c.c. The maximum permissible deviation from centre curvature, in % or mm, related to diagonal calculated from the work sizes (W).  
 e.c. The maximum permissible deviation from edge curvature, in % or mm, related to the corresponding work sizes (W).  
 w The maximum permissible deviation from warpage, in % or mm, related to diagonal calculated from the work sizes (W).  
 (1) Requirements european standard EN 176.  
 (2) Determination of slip resistance of pedestrian surfaces; it does not cover sports surfaces and road surfaces for vehicles (skid resistance).  
 Anti-slip performance is guaranteed at the time of delivery of the product