

















COLOURED BODY PORCELAIN TILES - RECTIFIED MONOCALIBER



30x60 cm 12"x24" ± 9 mm



This tiles complies recommended standard specifications for ceramics tiles ANSI A.137.1.
 Dry-pressed ceramic tiles with low water absorption ($E_b \leq 0,5\%$) Group Bla, ISO 13006:2012 (EN 14411:2012) annex G UGL

	Technical features	Test Method	Requirements for nominal size N			METALLO
			7 cm ≤ N < 15 cm	N ≥ 15 cm		
			(mm)	(%)	(mm)	
REGULARITY CHARACTERISTICS	 Length and width Thickness Straightness of sides Rectangularity	ISO 10545-2	± 0,9 ^(*)	± 0,6 ^(*)	± 2,0 ^(*)	MATT ± 0,2% ± 0,8 mm ± 5,0% ± 0,5 mm ± 0,2% ± 0,8 mm ± 0,3% ± 1,3 mm
			± 0,5 ^(**)	± 5 ^(**)	± 0,5 ^(**)	
			± 0,75 ^(***)	± 0,5 ^(***)	± 1,5 ^(***)	
			± 0,75 ^(****)	± 0,5 ^(****)	± 2,0 ^(****)	
	 Surface flatness	ISO 10545-2	c.c. ± 0,75	c.c. ± 0,5	c.c. ± 2,0	± 0,3% ± 1,3 mm
			e.c. ± 0,75	e.c. ± 0,5	e.c. ± 2,0	
			EN 14411 annex G (Group Bla)	ISO 13006 annex G (Group Bla)		
STRUCTURAL CHARACTERISTICS	 Water absorption	ISO 10545-3	$E_b \leq 0,5\%$ Individual Maximum 0,6%		≤ 0,1 %	
		ASTM C373	Requirement ANSI A137.1 Water Absorption Max ≤ 0,5%		≤ 0,5 %	
BULK MECHANICAL CHARACTERISTICS	 Breaking strength Modulus of rupture	ISO 10545-4	S ≥ 1300 N		S ≥ 2000 N	
			R ≥ 35 N/mm ²		R ≥ 40 N/mm ²	
	 Impact resistance, as coefficient of restitution	ISO 10545-5	Declared value	Test method available	≥ 0,55	
SURFACE MECHANICAL CHARACTERISTICS	 Mohs hardness	EN 101 ⁽¹⁾	≥ 6 (UGL)		Suitable for	
	 Resistance to deep abrasion of unglazed tiles (removed volume)	ISO 10545-6	≤ 175 mm ³		≤ 150 mm ³	
THERMAL AND HYGROMETRIC CHARACTERISTICS	 Coefficient of thermal linear expansion	ISO 10545-8	Declared value	Test method available	≤ 7 MK ⁻¹	
	 Thermal shock resistance	ISO 10545-9	Pass according to ISO 10545-1	Test method available	Resistant	
	 Moisture expansion (in mm/m)	ISO 10545-10	Declared value	Test method available	≤ 0,01% (0,1mm/m)	
	 Frost resistance	ISO 10545-12	Pass according to ISO 10545-1	Test method available	Resistant	
PHYSICAL PROPERTIES	 Bond strength/adhesion for improved cementitious adhesives	EN 1348	Declared value	-	≥ 1,0 N/mm ² (Class C2 - EN 12004)	
	 Reaction to fire	-	Class A1 or A1 _{fl}	-	A1 - A1 _{fl}	
CHEMICAL CHARACTERISTICS	 Resistance to household chemicals and swimming pool salts	ISO 10545-13	Minimum Class B (UB for unglazed tiles)		UA	
	Resistance to low concentrations of acids and alkalis		Declared Class	Test method available	ULA	
	Resistance to high concentrations of acids and alkalis		Declared Class	Test method available	UHA	
	 Resistance to staining	ISO 10545-14	Minimum Class 3		5	
SAFETY CHARACTERISTICS	 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.		> 0,42 Wet	
	Static coefficient of friction (SCOF)	ASTM C1028-2007	The Ceramic Tiles Institute identifies Tile Slip Resistant when SCOF ≥ 0,60		≥ 0,60 Dry ≥ 0,60 Wet	

^(*) 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.