



Sizes	50x110 cm 19% [*] x43¼" ± 8.5mm	40x80 cm 15¾"x31½" ± 8.5mm
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	Technical features	Test method	Requisites for nominal size N			Marvel Gems
			7 cm ≤ N < 15 cm (mm)	N ≥ 15 cm (%)	(mm)	Shiny rectified
Regularity features 	Length and width	ISO 10545-2	± 0,75 (*)	± 0,5 (*)	± 2,0 (*)	±0.3% ±1.0mm
	Thickness		± 0,5 (*)	± 10 (**)	± 0,5 (**)	±10.0% ±0.5mm
	Straightness of sides		± 0,5 (***)	± 0,3 (***)	± 1,5 (***)	±0.3% ±0.8mm
	Perpendicularity		± 0,75 (****)	± 0,5 (****)	± 2,0 (****)	±0.3% ±1.5mm
	Surface flatness		c.c. ± 0,75 - 0,50	c.c. ± 0,5 - 0,3	c.c. ± 2,0 - 1,5	±0.3% ±1.5mm
	w. ± 0,75	w. ± 0,5	w. ± 2,0			
Structural features	 Water absorption level (in% by mass)	ISO 10545-3	Average >10%. If this value > 20%, it must be indicated. Single value > 9%			10%<EV≤20%
Bulk mechanical features	 Breaking strenght	ISO 10545-4	S ≥ 600N			S ≥600 N
	 Bending resistance		R ≥ 35 N/mm ²			R ≥15 N/mm ²
Thermo-igrometric features	 Coefficient of linear thermal expansion	ISO 10545-8	Declared value			≤7MK-1
	 Thermal shock resistance	ISO 10545-9	Test passed in accordance with ISO 10545-1			Resistant
	 Moisture expansion (in mm/m)	ISO 10545-10	Declared value			≤0.06% (0.6mm/m)
	 Crazing resistance: glazed tiles	ISO 10545-11	Test passed in accordance with ISO 10545-1			≤0.06% (0.6mm/m)
Physical properties	 Bond strenght	EN 1348	Declared value			≥1.0 N/mm ² (Class C2 - EN 12004)
	 Reaction to fire	-	Class A1			A1
Chemical features	 Resistance to household chemicals and swimming pool salts Resistance to low concentrations of acids and alkalis Resistance to high concentrations of acids and alkalis	ISO 10545-13	Minimum B class			A
			Declared class			LA
			Declared class			HA
	 Stain resistance of glazed tiles	ISO 10545-14	Minimum Class 3			5
	 Release of dangerous substances: Cadmium (in mg/dm ²) and Lead (in mg/dm ²)	ISO 10545-15	Declared value			≤0.01mg/dm ² Cd ≤0.1mg/dm ² Pb

* 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