



Sizes	50x110 cm 19% [*] x43¼" ± 8.5mm	50x110 cm 19% [*] x43¼" ± 11mm	40x80 cm 15¾"x31½" ± 8.5mm	40x80 cm 15¾"x31½" ± 10mm
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	Technical features	Test method	Requisites for nominal size N		Marvel Stone						
			7 cm ≤ N < 15 cm	N ≥ 15 cm		Matte rectified 8.5mm 40x80 cm	Matte rectified 8.5mm 50x110 cm	Matte rectified 11mm 50x110 cm	Matte rectified 10mm 40x80 cm	Shiny rectified 8.5mm 50x110 cm	Shiny rectified 8.5mm 40x80 cm
			(mm)	(%)	(mm)						
Regularity features		Length and width	± 0,75 (*)	± 0,5 (*)	± 2,0 (*)	± 0,3% ± 1.0mm	± 0,3% ± 1.0mm	± 0,3% ± 1.0mm	± 0,3% ± 1.0mm	± 0,3% ± 1.0mm	± 0,3% ± 1.0mm
		Thickness	± 0,5 (*)	± 10 (**)	± 0,5 (**)	± 10,0% ± 0.5mm	± 10,0% ± 0.5mm	± 10,0% ± 0.5mm	± 10,0% ± 0.5mm	± 10,0% ± 0.5mm	± 10,0% ± 0.5mm
		Straightness of sides	± 0,5 (***)	± 0,3 (***)	± 1,5 (***)	± 0,3% ± 0.8mm	± 0,3% ± 0.8mm	± 0,3% ± 0.8mm	± 0,3% ± 0.8mm	± 0,3% ± 0.8mm	± 0,3% ± 0.8mm
		Perpendicularity	± 0,75 (****)	± 0,5 (****)	± 2,0 (****)	± 0,3% ± 1.5mm	± 0,3% ± 1.5mm	± 0,3% ± 1.5mm	± 0,3% ± 1.5mm	± 0,3% ± 1.5mm	± 0,3% ± 1.5mm
Structural features		Surface flatness	c.c. ± 0,75 - 0,50	c.c. ± 0,5 - 0,3	c.c. ± 2,0 - 1,5	± 0,3% ± 1.5mm	± 0,3% ± 1.5mm	Not applicable	Not applicable	± 0,3% ± 1.5mm	± 0,3% ± 1.5mm
			c.c. ± 0,75 - 0,50	c.c. ± 0,5 - 0,3	c.c. ± 2,0 - 1,5						
			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%	10% <EV≤20%	10% <EV≤20%	10% <EV≤20%	10% <EV≤20%	10% <EV≤20%
Bulk mechanical features		Breaking strenght	ISO 10545-4	S ≥ 600N		S ≥ 600 N		S ≥ 600 N		S ≥ 600 N	
		Bending resistance	ISO 10545-4	R ≥ 35 N/mm²		R ≥ 15 N/mm²	R ≥ 15 N/mm²	R ≥ 15 N/mm²	R ≥ 15 N/mm²	R ≥ 15 N/mm²	R ≥ 15 N/mm²
Thermo-igrometric features		Coefficient of linear thermal expansion	ISO 10545-8	Declared value		≤ 7MK-1	≤ 7MK-1	≤ 7MK-1	≤ 7MK-1	≤ 7MK-1	≤ 7MK-1
		Thermal shock resistance	ISO 10545-9	Test passed in accordance with ISO 10545-1		Resistant	Resistant	Resistant	Resistant	Resistant	Resistant
		Moisture expansion (in mm/m)	ISO 10545-10	Declared value		≤ 0.06% (0.6mm/m)	≤ 0.06% (0.6mm/m)	≤ 0.06% (0.6mm/m)	≤ 0.06% (0.6mm/m)	≤ 0.06% (0.6mm/m)	≤ 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)	≤ 0.06% (0.6mm/m)	≤ 0.06% (0.6mm/m)	≤ 0.06% (0.6mm/m)	≤ 0.06% (0.6mm/m)	≤ 0.06% (0.6mm/m)
Physical properties		Bond strenght	EN 1348	Declared value		≥ 1.0 N/mm² (Class C2 - EN 12004)	≥ 1.0 N/mm² (Class C2 - EN 12004)	≥ 1.0 N/mm² (Class C2 - EN 12004)	≥ 1.0 N/mm² (Class C2 - EN 12004)	≥ 1.0 N/mm² (Class C2 - EN 12004)	≥ 1.0 N/mm² (Class C2 - EN 12004)
		Reaction to fire	-	Class A1		A1	A1	A1	A1	A1	A1
Chemical features		Resistance to household chemicals and swimming pool salts	ISO 10545-13	Minimum B class		A	A	A	A	A	A
		Resistance to low concentrations of acids and alkalis		Declared class		LA	LA	LA	LA	LA	LA
		Resistance to high concentrations of acids and alkalis		Declared class		HA	HA	HA	HA	HA	HA
		Stain resistance of glazed tiles	ISO 10545-14	Minimum Class 3		5	5	5	5	5	5
	Release of dangerous substances: Cadmium (in mg/dm²) and Lead (in mg/dm²)	ISO 10545-15	Declared value		≤ 0.01mg/dm² Cd ≤ 0.1mg/dm² Pb	≤ 0.01mg/dm² Cd ≤ 0.1mg/dm² Pb	≤ 0.01mg/dm² Cd ≤ 0.1mg/dm² Pb	≤ 0.01mg/dm² Cd ≤ 0.1mg/dm² Pb	≤ 0.01mg/dm² Cd ≤ 0.1mg/dm² Pb	≤ 0.01mg/dm² Cd ≤ 0.1mg/dm² 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