



Formatos Sizes	40x80 cm 15 3/4" x 31 1/2" ± 8.5mm	40x80 cm 15 3/4" x 31 1/2" ± 10mm
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	Caratteristica tecnica Characteristics	Método de ensayo Test Method	Requisitos por tamaño nominal Requirements for nominal size N			BRAVE WALL			
			7 cm ≤ N < 15 cm	N ≥ 15 cm		Matt rectified	3D Matt rectified	3D Matt rectified ± 10mm 40x80 cm	
			(mm)	(%)	(mm)				
Características de tamaño Regularity characteristics		ISO 10545-2	Longitud y anchura Length and width	± 0,75 (*)	± 0,5 (*)	± 2,0 (*)	±0.3% ±1.0mm	±0.3% ±1.0mm	±0.3% ±1.0mm
			Grosor Thickness	± 0,5 (**)	± 10 (**)	± 0,5 (**)	±10.0% ±0.5mm	±10.0% ±0.5mm	±10.0% ±0.5mm
			Rectitud de los cantos Straightness of sides	± 0,5 (***)	± 0,3 (***)	± 1,5 (***)	±0.3% ±0.8mm	±0.3% ±0.8mm	±0.3% ±0.8mm
			Rectangularity Rectangularidad	± 0,75 (****)	± 0,5 (****)	± 2,0 (****)	±0.3% ±1.5mm	±0.3% ±1.5mm	±0.3% ±1.5mm
		planaridad Surface flatness		c.c. + 0,75 - 0,50	c.c. + 0,5 - 0,3	c.c. + 2,0 - 1,5	±0.3% ±1.5mm	Not applicable	±0.3% ±1.5mm
			e.c. + 0,75 - 0,50	e.c. + 0,5 - 0,3	e.c. + 2,0 - 1,5				
Características estructurales Structural features		ISO 10545-3	Absorción de agua (como % de la masa) (come % della massa) Water absorption level (in% by mass)	Media >10%. Se questo valore > 20%, deve essere indicato. Valore Singolo > 9% Average >10%. When the average > 20%, this shall be indicated. Individual value > 9%			10%<EB≤20%	10%<EB≤20%	10%<EB≤20%
Características mecánicas de masa Bulk mechanical features		ISO 10545-4	Resistencia de rotura Breaking strength	S ≥ 600N			S ≥600 N	S ≥600 N	S ≥600 N
			Resistencia a la Flexión Modulus of Rupture	R ≥ 15 N/mm2			R ≥15 N/mm ²	R ≥15 N/mm ²	R ≥15 N/mm ²
Caratteristiche Termogrametriche Thermo-igrometric features		ISO 10545-8	Coefficiente de dilatación térmica lineal Coefficient of linear thermal expansion	Valore dichiarato Declared value			≤7 1/mk	≤7 1/mk	≤7 1/mk
		ISO 10545-9	Resistencia al choque térmico Thermal shock resistance	Supera el ensayo de acuerdo con ISO 10545-1 Pass according to EN ISO 10545-1			Resiste	Resiste	Resiste
		ISO 10545-10	Dilatazione all'umidità (in mm/m) Moisture expansion (in mm/m)	Valore dichiarato Declared value			≤0.06% (0.6mm/m)	≤0.06% (0.6mm/m)	≤0.06% (0.6mm/m)
		ISO 10545-11	Resistenza al cavillo: piastrelle smaltate Crazing resistance: glazed tiles	Supera el ensayo de acuerdo con ISO 10545-1 Pass according to EN ISO 10545-1			Resiste	Resiste	Resiste
Características físicas Physical properties		EN 1348	Resistencia a la tracción de los adhesivos cementosos Bond strength/adhesion for improved cementitious adhesives	Valore dichiarato Declared value			≥1.0 N/mm ² (Class C2 - EN 12004)	≥1.0 N/mm ² (Class C2 - EN 12004)	≥1.0 N/mm ² (Class C2 - EN 12004)
		-	Reacción al fuego Reaction to fire	Clase A1 Class A1			A1	A1	A1
Características químicas Chemical features		ISO 10545-13	Resistencia a los productos químicos de uso doméstico y a los aditivos para piscinas Resistance to household chemicals and swimming pool salts	Clase mínima B Minimum Class B			GA	GA	GA
			Resistencia a los ácidos y bases de baja concentración Resistance to low concentrations of acids and alkalis	Clase declarada Declared Class			GLA	GLA	GLA
			Resistencia a los ácidos y bases de alta concentración Resistance to high concentrations of acids and alkalis	Clase declarada Declared Class			GHA	GHA	GHA
		ISO 10545-14	Resistenza alle macchie piastrelle smaltate Resistance to staining for glazed tiles	Clase 3 mínima Minimum Class 3			5	5	5
		ISO 10545-15	Rilascio di sostanze pericolose: Cadmio (in mg/dm2) e Piombo (in mg/dm2) Rilascio di sostanze pericolose: Cadmio (in mg/dm2) e Piombo (in mg/dm2)	Valore dichiarato 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

* Deviazione ammissibile, in % oppure mm, della dimensione media di ogni piastrella (2 oppure 4 lati) dalla dimensione di fabbricazione (W).
The permissible deviation, in % or mm, of the average size for each tile (2 or 4 sides) from work size (W).

** Deviazione ammissibile, in % oppure mm, dello spessore medio di ogni piastrella dallo spessore riportato nella dimensione di fabbricazione (W).
The permissible deviation, in % or mm, of the average thickness for each tile from the work size thickness (W).

*** Deviazione massima ammissibile di rettilineità, in % oppure mm, in rapporto alle dimensioni di fabbricazione (W) corrispondenti.
The maximum permissible deviation from straightness, in % or mm, related to the corresponding work sizes (W).

**** Deviazione massima ammissibile di ortogonalità, in % oppure mm, in rapporto alle dimensioni di fabbricazione (W) corrispondenti.
The maximum permissible deviation from rectangularity, in % or mm, related to the corresponding work sizes (W).

c.c. Deviazione massima ammissibile della curvatura del centro, in % oppure mm, in rapporto alla diagonale calcolata secondo le dimensioni di fabbricazione (W).
The maximum permissible deviation from centre curvature, in % or mm, related to diagonal calculated from the work sizes (W).

e.c. Deviazione massima ammissibile della curvatura dello spigolo, in % oppure mm, in rapporto alle dimensioni di fabbricazione (W) corrispondenti.
The maximum permissible deviation from edge curvature, in % or mm, related to the corresponding work sizes (W).

w. Deviazione massima ammissibile dello svergolamento, in % oppure mm, in rapporto alla diagonale calcolata secondo le dimensioni di fabbricazione (W).
The maximum permissible deviation from warpage, in % or mm, related to diagonal calculated from the work sizes (W).

(1) Determinazione della resistenza allo scivolamento delle superfici pedonabili; non si applica alle pavimentazioni sportive ed alle pavimentazioni stradali veicolari.
Determination of slip resistance of pedestrian surfaces; it does not cover sports surfaces and road surfaces for vehicles (skid resistance).

(2) Le prestazioni anti-slip vengono garantite al momento della consegna del prodotto.
Anti-slip performance is guaranteed at the time of delivery of the product.
However, tiles with a DCOF of 0.42 or greater are not necessarily suitable for all projects.

(3) 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 outdoor design general catalogue.

(5) Only for products with 20 mm thickness.

