



Formats Sizes	40x80 cm 15 3/4" x 31 1/2" ± 8.5mm	40x80 cm 15 3/4" x 31 1/2" ± 10mm	
-------------------------	---	--	--

	Caratteristica tecnica Characteristics	Metodo di prova Test Method	Requisiti per dimensione nominale N 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)				
Caractéristiques de régularité Regularity characteristics	 Longueur et largeur Length and width	ISO 10545-2	± 0,75 (*)	± 0,5 (*)	± 2,0 (*)	±0.3% ±1.0mm	±0.3% ±1.0mm	±0.3% ±1.0mm	
	 Épaisseur Thickness		± 0,5 (**)	± 10 (**)	± 0,5 (**)	±10.0% ±0.5mm	±10.0% ±0.5mm	±10.0% ±0.5mm	
	Straightness of sides Straightness of sides		± 0,5 (***)	± 0,3 (***)	± 1,5 (***)	±0.3% ±0.8mm	±0.3% ±0.8mm	±0.3% ±0.8mm	
	Rectangularity Orthogonalité		± 0,75 (****)	± 0,5 (****)	± 2,0 (****)	±0.3% ±1.5mm	±0.3% ±1.5mm	±0.3% ±1.5mm	
	 Planimétrie 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						
	w. ± 0,75	w. ± 0,5	w. ± 2,0						
Structural characteristics Structural features	 Masse d'eau absorbée (come % della massa) Water absorption level (in% by mass)	ISO 10545-3	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%	
Caractéristiques mécaniques massives Bulk mechanical features	 Force de rupture Breaking strength	ISO 10545-4	S ≥ 600N			S ≥ 600 N	S ≥ 600 N	S ≥ 600 N	
	 Résistance à La Flexion Modulus of Rupture		R ≥ 15 N/mm ²			R ≥ 15 N/mm ²	R ≥ 15 N/mm ²	R ≥ 15 N/mm ²	
Caratteristiche Termo-igrometriche Thermo-igrometric features	 Coefficient de dilatation thermique linéique Coefficient of linear thermal expansion	ISO 10545-8	Valore dichiarato Declared value			≤7 1/mk	≤7 1/mk	≤7 1/mk	
	 Résistance aux écarts de température Thermal shock resistance	ISO 10545-9	Test superato in accordo con ISO 10545-1 Pass according to EN ISO 10545-1			Resiste	Resiste	Resiste	
	 Dilatazione all'umidità (in mm/m) Moisture expansion (in mm/m)	ISO 10545-10	Valore dichiarato Declared value			≤0.06% (0.6mm/m)	≤0.06% (0.6mm/m)	≤0.06% (0.6mm/m)	
	 Resistenza al cavillo: piastrelle smaltate Crazing resistance: glazed tiles	ISO 10545-11	Test superato in accordo con ISO 10545-1 Pass according to EN ISO 10545-1			Resiste	Resiste	Resiste	
Proprietà Fisiche Physical properties	 Effort de cohésion Bond strength/adhesion for improved cementitious adhesives	EN 1348	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)	
	 Réaction au feu Reaction to fire	-	Classe A1 Class A1			A1	A1	A1	
Caractéristiques chimiques Chemical features	 Résistance aux produits chimiques à usage domestique et aux adjuvants pour piscine Resistance to household chemicals and swimming pool salts	ISO 10545-13	Classe minima B Minimum Class B			A	A	A	
			Résistance aux acides et aux alcalis à basse concentration Resistance to low concentrations of acids and alkalis	Classe dichiarata Declared Class			LA	LA	LA
			Résistance aux acides et aux alcalis à haute concentration Resistance to high concentrations of acids and alkalis	Classe dichiarata Declared Class			HA	HA	HA
	 Resistenza alle macchie piastrelle smaltate Resistance to staining for glazed tiles	ISO 10545-14	Classe 3 minima Minimum Class 3			5	5	5	
	 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)	ISO 10545-15	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 curvatures, 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 curvatures, 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).

Determinazione della resistenza allo scivolamento delle superfici pedonabili; non si applica alle pavimentazioni sportive ed alle pavimentazioni stradali veicolari.
(1) Determination of slip resistance of pedestrian surfaces; it does not cover sports surfaces and road surfaces for vehicles (skid resistance).
Le prestazioni anti-slip vengono garantite al momento della consegna del prodotto.
(2) 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.

