



Formate Sizes	120x278 cm 47 1/4"x109 1/2" ± 6mm	120x240 cm 47 1/4"x94 1/2" ± 9mm	75x150 cm 29 1/2"x59" ± 9.5mm	120x120 cm 47 1/4"x47 1/4" ± 9mm	45x90 cm 17 3/4"x35 3/8" ± 9mm	75x75 cm 29 1/2"x29 1/2" ± 9.5mm	60x60 cm 23 5/8"x23 5/8" ± 9mm	30x60 cm 11 3/4"x23 5/8" ± 9mm	60x120 cm 60x120 cm Lastra 20mm ± 20mm	30x60 cm 0"x0" ± 20mm
------------------	-----------------------------------------	----------------------------------------	-------------------------------------	----------------------------------------	--------------------------------------	----------------------------------------	--------------------------------------	--------------------------------------	-------------------------------------------------	-----------------------------

	Caratteristica tecnica Characteristics	Metodo di prova Test Method	Requisiti per dimensione nominale N Requirements for nominal size N			MARVEL STONE				
			7 cm ≤ N < 15 cm		N ≥ 15 cm	Polished	Matt	Textured	Textured ± 9mm 30x60 cm	
			(mm)	(%)	(mm)					
Caratteristiche di Regolarità Regularity characteristics		ISO 10545-2	Länge und Breite Length and width	± 0,9 (*)	± 0,6 (*)	± 2,0 (*)	±0.3% ±1.0mm	±0.3% ±1.0mm	±0.3% ±1.0mm	±0.3% ±1.0mm
			Stärke Thickness	± 0,5 (**)	± 5 (**)	± 0,5 (**)	±5.0% ±0.5mm	±5.0% ±0.5mm	±5.0% ±0.5mm	±5.0% ±0.5mm
			Geradlinigkeit der Kanten Straightness of sides	± 0,75 (***)	± 0,5 (***)	± 1,5 (***)	±0.3% ±0.8mm	±0.3% ±0.8mm	±0.3% ±0.8mm	±0.3% ±0.8mm
			Ortogonalität (Misurazione da condurre solo sui lati corti quando L/l ≥ 3) Rectangularity (Measurement only on short edges when L/l ≥ 3)	± 0,75 (****)	± 0,5 (****)	± 2,0 (****)	±0.3% ±1.5mm	±0.3% ±1.5mm	±0.3% ±1.5mm	±0.3% ±1.5mm
		Ebenflächigkeit Surface flatness		c.c. ± 0,75 e.c. ± 0,75 w. ± 0,75	c.c. ± 0,5 e.c. ± 0,5 w. ± 0,5	c.c. ± 2,0 e.c. ± 2,0 w. ± 2,0	±0.3% ±1.5mm	±0.4% ±1.8mm	Not applicable	Not applicable
Struktureigenschaften Structural features		ISO 10545-3 ASTM C373-18	Wasseraufnahme (come % della massa) Water absorption level (in% by mass)	$E_B \leq 0,5\%$ Valore massimo 0,6% - Individual Maximum 0,6%			≤0.1%	≤0.1%	≤0.1%	≤0.1%
				Requirement ANSI A137.1-2017 Water Absorption Max < 0,5%			≤0.5%	≤0.5%	≤0.5%	≤0.5%
Starke mechanische Eigenschaften Bulk mechanical features		ISO 10545-4	Bruchlast Breaking strength	$S \geq 700N$ (per spessore < 7,5mm - for thickness < 7,5mm) $S \geq 1300N$ (per spessore ≥ 7,5mm - for thickness ≥ 7,5mm)			$S \geq 1500N$	$S \geq 1500N$	$S \geq 10000N$	$S \geq 1500N$
			Biegefestigkeit Modulus of Rupture	$R \geq 35 N/mm^2$			$R \geq 40 N/mm^2$	$R \geq 40 N/mm^2$	$R \geq 45 N/mm^2$	$R \geq 40 N/mm^2$
		EN 1339 Annex F	Resistenza a Flessione ed al Carico di Rottura Bending Strength and Breaking Load	-			-	-	$\geq U7 30x60 \mid \geq T11 60x60 \mid \geq U4 60x120$	-
			Resistenza all'impatto, espresso come coefficiente di restituzione Impact resistance, as coefficient of restitution	ISO 10545-5	Valore dichiarato Declared value			≥0.55	≥0.55	≥0.55
Mechanische Eigenschaften der Oberfläche Surface mechanical features		EN 101 ISO 10545-6	Ritzhärte nach Mohs Mohs hardness	-			MOHS 5	MOHS 6	MOHS 8	MOHS 7
			Resistance to deep abrasion of unglazed tiles (removed volume) Resistance to deep abrasion of unglazed tiles (removed volume)	≤ 175 mm ³			≤150mm ³	≤150mm ³	≤150mm ³	≤150mm ³
Caratteristiche Termo- Igrometriche Thermo-igrometric features		ISO 10545-8 ISO 10545-9 ISO 10545-10 ISO 10545-12	Wärmeausdehnungskoeffizient Coefficient of linear thermal expansion	Valore dichiarato Declared value			≤7 1/mk	≤7 1/mk	≤7 1/mk	≤7 1/mk
			Temperaturwechselbeständigkeit Thermal shock resistance	Test superato in accordo con ISO 10545-1 Pass according to EN ISO 10545-1			Resiste	Resiste	Resiste	Resiste
			Dilatazione all'umidità (in mm/m) Moisture expansion (in mm/m)	Valore dichiarato Declared value			≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)	≤0.01% (0.1mm/m)
			Frostbeständigkeit Frost resistance	Test superato in accordo con ISO 10545-1 Pass according to EN ISO 10545-1			Resiste	Resiste	Resiste	Resiste
Physikalische Eigenschaften Physical properties		EN 1348	Hafffestigkeit 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)	≥1.0 N/mm ² (Class C2 - EN 12004)
			Brandverhalten Reaction to fire	Classe A1 oppure A1 _{fl} Class A1 or A1 _{fl}			A1 - A1 _{fl}	A1 - A1 _{fl}	A1 - A1 _{fl}	A1 - A1 _{fl}
Chemischen Eigenschaften Chemical features		ISO 10545-13	Beständigkeit gegen Haushaltschemikalien und Zusatzstoffe für Schwimmbäder Resistance to household chemicals and swimming pool salts	Classe minima B Minimum Class B			UA	UA	UA	UA
			Beständigkeit gegen niedrigkonzentrierte Säuren und Laugen Resistance to low concentrations of acids and alkalis	Classe dichiarata Declared Class			ULA	ULA	ULA	ULA
			Beständigkeit gegen hochkonzentrierte Säuren und Laugen Resistance to high concentrations of acids and alkalis	Classe dichiarata Declared Class			0	UHA	UHA	UHA
		ISO 10545-14	Resistenza alle macchie piastrelle smaltate Resistance to staining for glazed tiles	Classe dichiarata Declared Class			5	5	5	5
Sicherheitsmerkmale Safety characteristics		DIN 51130 DIN 51097 BS 7976 AS 4586 UNE-ENV 12633 B.C.R.A. Rep. CEC/81 ANSI A.137.1	Rampenmethode mit Schuhen Shod Ramp Test	Classe dichiarata Declared Class			0	R9	R11	R11
			Rampenmethode barfuß Barefoot Ramp Test	Declared value Valore dichiarato			0	A	A+B+C	A+B+C
				PTV 36 classifies the surface as "low slip risk"			PTV ≥ 36 Wet on demand / su richiesta	PTV ≥ 36 Wet on demand / su richiesta	PTV ≥ 36 Wet on demand / su richiesta	PTV ≥ 36 Wet on demand / su richiesta
			Pendelmethode Pendulum Friction Test	Declared Classification of the new pedestrian surface materials according to the Pendulum Test			Class P3	Class P3	Class P3	Class P3
				Valore dichiarato Declared value			Class 0	Class 1	Class 3	Class 3
			Coefficiente di attrito Coefficient of friction (COF)	D. M. 236/89 del 14/06/89 μ >0,40 per elemento scivolante cuoio su pavimentazione asciutta μ >0,40 per elemento scivolante gomma dura su pavimentazione bagnata			>0.40Asciutto <0.40Bagnato	>0.40Asciutto >0.40Bagnato	>0.40Asciutto >0.40Bagnato	>0.40Asciutto >0.40Bagnato
			Dinamischer Reibungskoeffizient Dynamic coefficient of friction (DCOF)	ANSI A.137.1-2017 Requires a minimum value of 0.42 for level interior space expected to be walked upon when wet. (3)			<0.42Wet	>0.42Wet	>0.42Wet	>0.42Wet

- * 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).
- 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).
- (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.

www.atlasconcorde.com