LEA

CERAMICHE

Tender specifications | **SIDE STONE collection**

Supply of LEA Ceramiche porcelain stoneware tiles for walls and floors.

Product characteristics

LEA Ceramiche coloured-body porcelain stoneware tiles, unglazed, composed of a very fine mixture of quality clay with the addition of feldspar, quartz and kaolin, manufactured by dry pressing of atomized powders and subsequently sintered by industrial firing at temperatures above 1200°C.
The complete vitrification of the tiles allows for a compact, non-absorbent, frost-proof product, resistant to bending, impacts, staining, chemical attack and thermal shock.
Safetouch: cutting-edge technology that makes ceramic surfaces smoother and more pleasant to the touch, while maintaining high standards of slip resistance, hygiene, ease of cleaning and maintenance.

Compliance with EN 14411-G / ISO 13006-G

The SIDE STONE collection is in compliance with the regulations required for first quality products in Italy and Europe UNI EN 14411-G and internationally through ISO 13006-G.

Quality and environmental certifications

The conservation of the product characteristics is guaranteed by the Quality Management System put into practice by LEA Ceramiche in its plants and certified in accordance with UNI EN ISO 9001.
The collection is manufactured in plants with UNI EN ISO 14001 certified Environmental Management Systems (internationally recognized standard) and EMAS (Regulation CE 1221/09 - eco-management and audit community system).
The collection helps to meet the criteria for obtaining LEED credits. The content of "pre-consumer" recycled material is 40%, as certified by a qualified external body (LEED V4 Regulations - MR Credit).
The product contains no VOC (volatile organic compounds) and got the GREENGUARD GOLD certification.
The Environmental Product Declaration (EPD) is available, this tool communicates clearly the environmental performances of the SIDE STONE collection based on its Life Cycle Assessment (LCA).
For all the items in the collection, the calculation of the carbon footprint (PCF) over the entire life cycle is available, expressed as CO_2 equivalent per unit of product, certified according to ISO 14067.
The collection complies with the technical specifications and contractual conditions applicable to porcelain stoneware outlined in the Ministerial Decree of 23 June 2022 "Minimum environmental criteria for the contracting of the design and execution of works for building projects".

Antibacterial properties

Thanks to Protect antibacterial technology, the tiles from the SIDE STONE collection have continuous, effective and durable protection against the proliferation of bacteria, tested and certified in accordance with ISO 22196 and ASTM E3031.
(Not for GRIP L2-20 mm* surface).

Commercial description of the product			
Company	LEA CERAMICHE (Panariagroup Industrie Ceramiche S.p.A.)		
Collection	SIDE STONE		
Colours	CLUSTER LIGHT, CLUSTER MID, CLUSTER DARK		
Sizes	120x120 cm Rect NAT		
	60x120 cm Rect NAT	60x120 cm Rect GRIP	60x120 Rect GRIP L2-20mm
	60x60 cm Rect NAT	60x60 cm Rect GRIP	
	30x60 cm Rect NAT		
Surfaces	NAT, GRIP, GRIP L2-20mm*		
Edges	RECTIFIED (RECT)		
Thickness	9 mm - L2-20mm		

ISO 9001 | ISO 14001 | EMAS | GREENGUARD GOLD | LEED | LEED | EPD | CFP | RECYCLED MATERIALS | CRITERI AMBIENTALI MINIMI | ANTIBACTERIAL

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Technical features

Product type: coloured-body porcelain stoneware (UGL)
According to: ISO 13006-G (Group BIa), EN 14411-G (Group BIa)

Technical features		Test method	Required values ISO 13006-G / EN 14411-G BIa-UGL Group	Average values SIDE STONE
Water absorption		ISO 10545-3	≤ 0,5%	0,05%
Breaking strength (S)		ISO 10545-4	≥ 1300 N	Thickness 9 mm: 2200 N Thickness 20 mm: 13600 N
Modulus of rupture		ISO 10545-4	≥ 35 N/mm^2	50 N/mm^2
Deep abrasion resistance		ISO 10545-6	≤ 175 mm^3	145 mm^3
Linear thermal expansion		ISO 10545-8	No provision	$\alpha \leq 7 \cdot 10^{-6}$ °C^{-1}
Stain resistance		ISO 10545-14	Class 3 min.	5 RESISTANT
Chemical resistance (*)		ISO 10545-13	As indicated by manufacturer	LA, HA RESISTANT
Frost resistance		ISO 10545-12	No alteration	RESISTANT
Dimensions	Lenght and width	ISO 10545-2	RECT ± 0,3%, max ± 1 mm	COMPLIANT
	Straightness of sides	ISO 10545-2	RECT ± 0,3%, max ± 0,8 mm	COMPLIANT
	Rectangularity	ISO 10545-2	RECT ± 0,3%, max ± 1,5 mm	COMPLIANT
	Warpage	ISO 10545-2	RECT ± 0,4%, max ± 1,8 mm	COMPLIANT
	Thickness	ISO 10545-2	RECT ± 5%, max ± 0,5 mm	COMPLIANT
Slip resistance		DIN EN 16165 - Annex B	-	R10 (NAT) R11 (GRIP, GRIP L2-20mm)
		DIN EN 16165 - Annex A	-	B (NAT) C (GRIP, GRIP L2-20mm)
		BCR-TORTUS	-	μ > 0,40 (NAT, GRIP, GRIP L2-20mm)
		ANSI A326.3	-	ID - DCOF ≥ 0.42 (Dry): NAT IW - DCOF ≥ 0.42 (Wet): NAT IW+: NAT (***) EW: GRIP, GRIP L2-20mm
		AS/NZS 4586	-	P3 (NAT) P4 (GRIP, GRIP L2-20mm)
		BS EN 16165 - Annex C	-	PTV 36+Wet (Sl. 96): NAT PTV 36+Wet (Sl.96 - Sl.55): GRIP, GRIP L2-20mm
Shade variation		ANSI A 137.1	As indicated by manufacturer	V4 CLUSTER
Fire reaction		EN 13823	CPR (UE) 305/2011, 2000/147/CE, UNI EN 13501-1	Class A1 (wall)
		EN 9239-1		Class A1$_{fl}$ (floor)
Thermal conductivity		EN 12524	-	λ = 1,3 W/m °K
Recommended minimum joint (**)		Indoor	-	2 mm (Rect)
		Outdoor	-	5-6 mm approx

(*) Excluding hydrofluoric acid and its derivatives.
(**) The width of grout joints must be established by the installation supervisor, unless grout widths are regulated by national laying standards.
(***) With the exception of areas characterized by a higher risk of slipping (such as public showers, indoor swimming pools, etc.) for which an anti-slip surface is recommended (GRIP).

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