

# LEA

CERAMICHE

## Tender specifications | CONCRETO collection - SLIMTECH

Supply of ceramic slabs made of LEA Ceramiche Slimtech laminated porcelain tile for floors and walls.

### Product characteristics

LEA Ceramiche - Slimtech laminated porcelain slabs, totally carbon neutral (CO<sub>2</sub> generated from the life cycle 100% neutralized) produced in a maximum size of 2600x1200 mm and 6 mm thick, obtained from raw materials of the highest quality and purity (light clay, feldspar and ceramic pigments with high chromatic performance), and manufactured by dry pressing on a belt of atomized powder, subsequently sintered by means of industrial firing at temperatures exceeding 1200 °C.

The innovative Slimtech manufacturing process produces a final product which is light, flat and flexible, but at the same time compact, non-absorbent, frost-resistant, resistant to stains, chemical attack and thermal shock, and extreme versatility and ease of use for a wide range of applications in the architectural world.

### Compliance with EN 14411-G / ISO 13006-G

The CONCRETO Slimtech 6mm 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 recognised standard) and EMAS (Regulation 1221/09 - eco-management and audit community system).

The collection helps to meet the criteria for obtaining LEED credits.

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 CONCRETO Slimtech 6mm 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<sub>2</sub> 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".

Think Zero: Slimtech ultra-thin slabs are totally carbon neutral and produced with innovative technology to minimise environmental impact: the CO<sub>2</sub> generated by the life cycle of this product has been 100% neutralised with the purchase of carbon credits belonging to the CDM (Clean Development Mechanism) standard.

### Antibacterial properties

Thanks to Protect antibacterial technology, the tiles from the CONCRETO Slimtech 6mm collection have continuous, effective and durable protection against the proliferation of bacteria, tested and certified in accordance with ISO 22196 and ASTM E3031.

Commercial description of the product	
Company	LEA CERAMICHE (Panariagroup Industrie Ceramiche S.p.A.)
Collection	CONCRETO Slimtech 6mm
Colours	CONCRETO EXTRA LIGHT, CONCRETO LIGHT, CONCRETO MEDIUM, CONCRETO RUST
Sizes	120x260 cm Rect NAT
	120x120 cm Rect NAT
	60x120 cm Rect NAT
Surfaces	NAT
Edges	RECTIFIED (RECT)
Thickness	6 mm



ISO 9001

ISO 14001

EMAS

GREENGUARD GOLD

LEED

LEED

EPD

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ULTRATHIN - CO<sub>2</sub> NEUTRAL ULTRASUSTAINABLE

ANTIBACTERIAL

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### Technical features

Product type: laminated porcelain stoneware (UGL)

According to: ISO 13006-G (Group Bla), EN 14411-G (Group Bla)

Technical features		Test method	Required values EN 14411-G / ISO 13006-G Bla-UGL Group	Average values CONCRETO Slimtech 6mm
Water absorption		ISO 10545-3	≤ 0,5%	0,1%
Modulus of rupture		ISO 10545-4	≥ 35 N/mm <sup>2</sup>	45 N/mm <sup>2</sup>
Deep abrasion resistance		ISO 10545-6	≤ 175 mm <sup>3</sup>	COMPLIANT
Linear thermal expansion		ISO 10545-8	No provision	$\alpha \leq 7 \cdot 10^{-6} \text{ }^{\circ}\text{C}^{-1}$
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	± 5% ± 0,5 mm	COMPLIANT
Slip resistance		DIN EN 16165 - Annex B	-	R10 (NAT)
		BCR-TORTUS	-	μ > 0,40 (NAT)
		ANSI A326.3	-	ID - DCOF ≥ 0.42 (Dry): NAT IW - DCOF ≥ 0.42 (Wet): NAT IW+: NAT (***)
Shade variation		ANSI A137.3	As indicated by manufacturer	V3
Fire reaction		EN 13823	CPR (UE) 305/2011, 2000/147/CE, UNI EN 13501-1	Class A1 (wall)
		EN 9239-1		Class A1 <sub>f</sub> (floor)
Thermal conductivity		EN 12524	-	λ = 1,3 W/m °K
Recommended minimum joint (**)		Indoor	-	1 mm (wall) 2 mm (floor)
		Outdoor	-	5 mm (wall)

(\*) 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.



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