

Tender specifications BLUTECH collection

Supply of Blustyle by Cotto d'Este porcelain stoneware tiles for walls and floors.

Product characteristics

Blustyle by Cotto d'Este full 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.

Compliance with EN 14411-G / ISO 13006-G

The Blutech 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 Blustyle by Cotto d'Este 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 1221/09 - eco-management and audit community system).

The collection helps to meet the criteria for obtaining LEED V4 credits. The product contains no VOC (volatile organic compounds) and has obtained the GREENGUARD GOLD certification.

Commercial description of the product	
Company	BLUSTYLE by COTTO D'ESTE (Panariagroup Industrie Ceramiche S.p.A.)
Collection	BLUTECH
Colours	BIANCO, AVORIO, BEIGE, CEMENTO, CENERE, ANTRACITE
Sizes	30X60 cm
	60X60 cm (NO JUTA)
	90X90 cm (NO JUTA)
Surfaces	NATURALE, LAPPATA, LEVIGATA, JUTA PERLATA - Recommended, as well as for wall cladding, also for flooring in residential areas.
Edges	RETTIFICATI (RTT)
Thickness	10,5mm : 60x60 cm and 30x60 cm (LEVIGATA 10 mm)
	11 mm : 90x90 cm (LEVIGATA 10,5 mm)
	14 mm : 60x60 cm (NATURALE – AVORIO & CENERE)

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Technical features

Product type: full body porcelain stoneware (UGL)

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

Technical features		Test method	Required values ISO 13006-G, EN 14411-G	Average values BLUTECH
Water absorption		ISO 10545-3	≤ 0,5 %	0,05 %
Breaking strength (S)		ISO 10545-4	≥ 1300 N	Thick. 10mm: 3200N Thick. 10,5mm: 3500 N Thick. 11mm: 3900 N Thick. 14mm: 6400 N
Modulus of rupture		ISO 10545-4	≥ 35 N/mm ²	50 N/mm ²
Deep abrasion resistance		ISO 10545-6	≤ 175mm ³	123 mm ³
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 (NATURALE, JUTA, LAPPATA) ≥3 (PERLATA, LEVIGATA)
Chemical resistance (*)		ISO 10545-13	As indicated by manufacturer	LA, HA RESISTANT (NATURALE, JUTA) LB, HB (PERLATA, LEVIGATA, LAPPATA)
Frost resistance		ISO 10545-12	No alteration	RESISTANT
Dimensions	Lenght and width	ISO 10545-2	± 0,3 %, max ± 1 mm	COMPLIANT
	Straightness of sides	ISO 10545-2	± 0,3 %, max ± 0,8 mm	COMPLIANT
	Rectangularity	ISO 10545-2	± 0,3 %, max ± 1,5 mm	COMPLIANT
	Warpage	ISO 10545-2	± 0,4 %, max ± 1,8 mm	COMPLIANT
	Thickness	ISO 10545-2	± 5 %, max ± 0,5 mm	COMPLIANT
Slip resistance	DIN 51130	-	R9 (LAPPATA) R10 (NATURALE) R12 (JUTA)	
	DIN 51097	-	A+B (NATURALE) A+B+C (JUTA)	
	BCR-TORTUS	-	$\mu > 0,40$ (NATURALE, JUTA)	
	ANSI A137.1	-	DCOF≥0.42 (LAPPATA, PERLATA, NATURALE, JUTA)	
	AS 4586:2013	-	P3 (NATURALE) P4 (JUTA)	
	BS 7976-2	-	PTV 36+ Wet SI. 96 (NATURALE, JUTA) PTV 36+ Wet SI. 55 (JUTA)	
	UNE 41901 EX	-	Clase 1 (LAPPATA) Clase 2 (NATURALE) Clase 3 (JUTA)	
Shade variation	ANSI A 137.1	As indicated by manufacturer	V2	
Fire Reaction	EN 13823	CPR (UE) 305/2011, 2000/147/CE, UNI EN 13501-1	Class A1 (wall)	
	EN 9239-1		Class A1 _{f1} (floor)	
Thermal conductivity	EN 12524	-	$\lambda = 1,3 \text{ W/m } ^\circ\text{K}$	
Recommended minimum joint (**)	Indoor	-	2mm	
	Outdoor	-	3/4 mm	

(*) 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.