MARGRES
CERAMIC TILES

ENDLESS

Tender Specifications

Supply of ceramic wall and floor tiles

Product characteristics

Unglazed Porcelain Tiles (UGL)

Unglazed porcelain stoneware consists of a mixture of quality clay with the addition of feldspar, quartz and kaolin. It is manufactured by dry pressing of atomized powder and then sintered by industrial burning at temperatures above 1200ºC.
The glazing level of the material makes it possible to obtain a compact, non-porous product, resistant to ice, bending, impact, staining, chemical attack and thermal shock.

The Endless collection complies with the regulations required for top quality products in Europe according to EN 14411 - Annex G and internationally through ISO 13006 - Annex G.

Quality and environmental certifications

The conservation of the product characteristics is guaranteed by the Quality Management System put into practice by Panaria Portugal in its plants and certified in accordance with EN ISO 9001.
The collection is manufactured in plants with 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 credits The product contains no VOC (volatile organic compounds) and has obtained the GREENGUARD GOLD certification.
The Environmental Product Declaration (EPD) is available, this tool communicates clearly the environmental performances of the Endless collection based on its Life Cycle Assessment (LCA).
This range is made of 5% - 18% recycled content this way contributing to a more sustainable project.

Commercial description of the product	
Brand	Margres
Collection	Endless
Colours	Calacatta Gold, Breccia Capraia, Travertino, Port Black, Amazonite
Sizes	90x90 _ 89x89* _ 60x120
Finish - Surface	Smooth (SM)** _ Polished (P) _ Anti-Slip (ASR)***
Finish - Edge	Rectified
Thickness	9,5mm (90x90, 89x89, 60x120)

* available only in Polished finish
** available in colours Calacatta Gold, Breccia Capraia and Travertino
*** available in colours Calacatta Gold, Breccia Capraia and Travertino, size 90x90

ISO 9001 | ISO 14001 | ISO 50001 · EMAS · ENVIRONMENTAL PRODUCT DECLARATION · LEED · GREENGUARD GOLD · HEALTHY BUILDING PRODUCTS · HEALTH PRODUCT DECLARATION

Tender Specifications

Technical features

Product type: **Unglazed Porcelain Tiles (UGL)**
According to: ISO 13006 - Annex G (Group Bla), EN 14411 - Annex G (Group Bla)

Technical features		Test method	Required value ISO 13006 / EN 14411	Typical Margres value
Dimensions	Lenght and width	EN ISO 10545-2	Rect. ± 0,3% , máx ± 1 mm	Conform
	Side straightness		Rect. ± 0,3% , máx ± 0,8 mm	Conform
	Rectangularity		Rect. ± 0,3% , máx ± 1,5 mm	Conform
	Warpage		Rect. ± 0,4% , máx ± 1,8 mm	Conform
	Thickness		± 5% máx ± 0,5 mm	Conform
Water absorption		EN ISO 10545-3	≤ 0,5%	0,1%
Modulus of rupture		EN ISO 10545-4	≥ 35 N/mm²	48 N/mm²
Breaking strength (S)			≥ 1300 N	2400N
Abrasion resistance		EN ISO 10545-6	≤ 175mm³	139 mm³
Linear thermal expansion		EN ISO 10545-8	As indicated by manufacturer	$\alpha \leq 7{,}5 \times 10^{-6}$ °C^{-1}
Thermal shock resistance		EN ISO 10545-9	Required	Resistant
Frost resistance		EN ISO 10545-12	Required	Resistant
Resistance against acids and alkalis		EN ISO 10545-13	As indicated by manufacturer	Minimum ULB
Resistance to household cleaning products			Minimum: UB	Class UA
Stain Resistance		EN ISO 10545-14	As indicated by manufacturer	4 Simple removal
Slip Resistence		DIN EN 16165 Annex B	As indicated by manufacturer	R10 ASR
		DIN EN 16165 Annex A		Class B ASR
		DIN EN 16165 Annex C		≥36 ASR
		AS/NZS 4586		P3 ASR
Shade Variation		ANSI A137.1	V0 None _ V1 Minor V2 Low _ V3 Medium _ V4 Major	V2 Slight variation
Recomended joint		Indoor Outdoor	-	Minimum 2mm Minimum 3mm (5mm colour Port Black)

It is guaranteed the compliance with the values required by norm EN 14411 Group Bla UGL. Typical Margres reference value is merely indicative, which can vary from real data, and does not have the purpose of any trading proposal.
Endless is suitable for light residential or commercial use, with low traffic.
Products with a polished finish are more sensitive to abrasion and stains, what requires special conditions. Please check technical information on chapter 9 from Margres general catalogues.

Tender Specifications

Quality and environmental certifications

Certification ISO 9001 - ISO 14001 - ISO 50001
Quality, Environment and Energy Management Systems.
For establishments seeking low environmental impact and high efficiency.

download ISO 9001, ISO 14001 and ISO 50001

DoP - Performance Declaration
The CE mark is a safety certification required by the European Union with the intention of safeguarding health and safety.

download DoP porcelain tiles

EMAS
Community eco-management and auditing system. Being green and transparent.

download EMAS

LEED
Margres is a member of the U.S. Green Building Council and of the Green Building Council ITALIA. These organizations promote the construction of buildings and other works which respect the environment as well as the health and well-being of the people who live and work within them.

download U.S. Green Building Council and Green Building Council Italy

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EPD
The Environmental Product Declaration

download EPD porcelain tiles

GREENGUARD GOLD
GREENGUARD certifies products that guarantee the highest standards of air quality in indoor environments.

download Greenguard Gold

HEALTHY BUILDING PRODUCTS

download Declare porcelain tiles

HPD
Health Product Declaration

Protect® antibacterial technology
Continuous, effective and long-lasting protection against the proliferation of bacteria, tested and certified according to ISO 22196 and ASTM E3031. Anti-slip finish doesn't have antibacterial protection.

download Protect