

## 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 1100°C. 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 Fragment 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.

Commercial description of the product	
Brand	Margres
Collection	Fragment
Colours	White, Grey, Terracotta
Sizes	90x90 (NR) _ 60x120 (NR) _ 60x60 (NR)
Finish - Surface	Natural (NR)
Finish - Edge	Rectified
Thickness	9,5mm (90x90, 60x120)   8,5mm (60x60)



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ISO 9001 | ISO 14001



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## Tender Specifications

### Technical features

Product type: **Unglazed Body 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. $\pm 0,3\%$ , máx $\pm 1$ mm	Conform
	Side straightness		Rect. $\pm 0,3\%$ , máx $\pm 0,8$ mm	Conform
	Rectangularity		Rect. $\pm 0,3\%$ , máx $\pm 1,5$ mm	Conform
	Warpage		Rect. $\pm 0,4\%$ , máx $\pm 1,8$ mm	Conform
	Thickness		$\pm 5\%$ máx $\pm 0,5$ mm	Conform
Water absorption		EN ISO 10545-3	$\leq 0,5\%$	0,1%
Modulus of rupture		EN ISO 10545-4	$\geq 35$ N/mm <sup>2</sup>	48 N/mm <sup>2</sup>
Breaking strength (S)			$\geq 1300$ N	2400N
Abrasion resistance		EN ISO 10545-6	$\leq 175$ mm <sup>3</sup>	139 mm <sup>3</sup>
Linear thermal expansion		EN ISO 10545-8	As indicated by manufacturer	$\alpha \leq 7,5 \times 10^{-6}$ °C <sup>-1</sup>
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: LB
Resistance to household cleaning products			Minimum: B	Class A
Stain Resistance		EN ISO 10545-14	As indicated by manufacturer	4-5 Simple removal
Slip Resistance		DIN EN 16165 Annex B	As indicated by manufacturer	R9
		DIN EN 16165 Annex A		Class B
		DIN EN 16165 Annex C		$\geq 36$
		AS/NZS 4586		P3
		ENV 12633		Class 1
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

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.



## Tender Specifications

### Quality and environmental certifications



Certification ISO 9001 - ISO 14001  
Quality and Environmental Management Systems.  
For production sites with low impact and high efficiency.

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

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The Environmental Product Declaration

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## Tender Specifications

### Quality and environmental certifications



HPD  
Health Product Declaration



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