

Tender Specifications

Supply of ceramic wall and floor tiles

Product characteristics

Single Fired Wall Tiles

The white body product is composed of a mixture of quality clay with the addition of feldspar, quartz and kaolin. It is manufactured by dry pressing of atomized powder, with the application of enamel, and then sintered by industrial burning at temperatures above 1100°C.

The product is resistant to cracking, bending, impact, staining, chemical attack and thermal shock.

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

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

Commercial description of the product					
Company	Love Ceramic Tiles				
Collection	Sense				
Colours	White, Beige, Light Grey, Grey				
Sizes	Wall tiles	35x100 RET.		35x70 RET.	
	Wall tiles - Structures	35x100 RET. _ Amazon, Scratch		35x70 RET. _ Elevation, Botanic	
	Floor tiles (UGL)	100x100 RET.	80x80 RET.	60x60 RET.	30x60 RET.
Finish - Surface	Wall tiles	Matt - Matt looking surface. Recommended for interior wall cladding.			
	Floor tiles (UGL)	Touch - Matt surface. Recommended for indoor flooring. In&out - Anti-slip characteristics, but is soft and allows perfect use both inside and outside, with a floor adapted to the requirements of both types of spaces. Anti-slip (AS) - Product with a rough surface that gives it anti-slip properties. Recommended for use as outdoor flooring or indoor spaces that require anti-slip properties.			
Finish - Edge	Rectified (RET)				
Thickness	Wall tiles	8mm _ 35x100 RET. 35x70 RET.			
	Wall tiles - Structures	Amazon 7,6-7,8mm Scratch 7,7-8,1mm Elevation 7,3-8,8mm Botanic 7,2-8,7mm			
	Floor tiles (UGL)	9mm _ 100x100, 80x80 8mm _ 60x60, 30x60			



Tender Specifications

Technical features

Product type: **Single Fired Wall Tiles**

According to: ISO 13006 - Annex L (Group BIII), EN 14411 - Annex L (Group BIII)

Technical features		Test method	Required value ISO 13006 / EN 14411	Typical Value Love Tiles
Dimensions	Lenght and width	EN ISO 10545-2	Non Rect. $\pm 0,6\%$, max $\pm 2,0$ mm Rect. $\pm 0,3\%$, max $\pm 1,0$ mm	Conform
	Side straightness		Non Rect. $\pm 0,5\%$, max $\pm 2,0$ mm Rect. $\pm 0,3\%$, max $\pm 1,5$ mm	Conform
	Rectangularity		Non Rect. $\pm 0,5\%$, max $\pm 2,0$ mm Rect. $\pm 0,3\%$, max $\pm 1,5$ mm	Conform
	Warpage - Center and edge curvature		Non Rect. $\pm 0,5\%$, max $\pm 2,0$ mm Rect. $\pm 0,4\%$, max $\pm 1,8$ mm	Conform
	Warpage		Non Rect. $\pm 0,5\%$, max $\pm 2,0$ mm Rect. $\pm 0,4\%$, max $\pm 1,8$ mm	Conform
	Thickness		$\pm 10\%$, max $\pm 0,5$ mm	Conform
Water absorption (E)		EN ISO 10545-3	E > 10%	16%
Modulus of rupture		EN ISO 10545-4	≥ 12 N/mm ²	19 N/mm ²
Breaking strength (S)			S ≥ 600 N	700 N
Linear thermal expansion		EN ISO 10545-8	As indicated by manufacturer	$\alpha \leq 7,5 \times 10^{-6} \text{ } ^\circ\text{C}^{-1}$ Maximum value
Thermal shock resistance		EN ISO 10545-9	Required	Resistant
Crazing resistance		EN ISO 10545-11	Required	Resistant
Resistance against acids and alkalis		EN ISO 10545-13	As indicated by manufacturer	GLB
Resistance to household cleaning products			Minimum: GB	GA
Stain Resistance		EN ISO 10545-14	Minimum: class 3	4
Recomended joint		Rectified Indoor	-	Minimum 2 mm

It is guaranteed the compliance with the values required by norm EN 14411_Group BIII. Typical Value is merely indicative, which can vary from real data, and does not have the purpose of any trading proposal.



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 Value Love Tiles
Dimensions	Lenght and width	EN ISO 10545-2	Non Rect. $\pm 0,6\%$, max $\pm 2,0$ mm Rect. $\pm 0,3\%$, max $\pm 1,0$ mm	Conform
	Side straightness		Non Rect. $\pm 0,5\%$, max $\pm 2,0$ mm Rect. $\pm 0,3\%$, max $\pm 1,5$ mm	Conform
	Rectangularity		Non Rect. $\pm 0,5\%$, max $\pm 2,0$ mm Rect. $\pm 0,3\%$, max $\pm 1,5$ mm	Conform
	Warpage		Non Rect. $\pm 0,5\%$, max $\pm 2,0$ mm Rect. $\pm 0,4\%$, max $\pm 1,8$ mm	Conform
	Thickness		$\pm 5\%$ max $\pm 0,5$ mm	Conform
Water absorption (E)		EN ISO 10545-3	$E \leq 0,5\%$	0,1%
Modulus of rupture		EN ISO 10545-4	≥ 35 N/mm ²	45 N/mm ²
Breaking strength (S)			$S \geq 1300$ N	2000 N
Abrasion resistance		EN ISO 10545-6	≤ 175 mm ³	139mm ³
Linear thermal expansion		EN ISO 10545-8	As indicated by manufacturer	$\alpha \leq 7,5 \times 10^{-6} \text{ } ^\circ\text{C}^{-1}$ Maximum value
Thermal shock resistance		EN ISO 10545-9	Required	Resistente
Crazing resistance		EN ISO 10545-11	Required	Resistente
Frost resistance		EN ISO 10545-12	Required	Resistente
Resistance against acids and alkalis		EN ISO 10545-13	As indicated by manufacturer	ULB
Resistance to household cleaning products			Minimum: UB	UA
Stain Resistance		EN ISO 10545-14	As indicated by manufacturer	4
Slip Resistance		DIN EN 16165 _ Annex B	As indicated by manufacturer	R10 in&out
		DIN EN 16165 _ Annex A		B in&out
		DIN EN 16165 _ Annex C		≥ 36 in&out
		AS/NZS 4586		P4 in&out
		ENV 12633		Class 2 in&out
Shade Variation		ANSI A137.1	V0 None _ V1 Minor V2 Low _ V3 Medium V4 Major	V2
Recomended joint		Rectified Indoor Rectified Outdoor	-	Minimum 2 mm Minimum 3 mm

It is guaranteed the compliance with the values required by norm EN 14411_Group Bla UGL. Typical 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.

download [ISO 9001](#) and [ISO 14001](#)



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 single fired wall tiles](#) and [DoP porcelain tiles](#)



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

download [EMAS](#)



LEED
Love Tiles 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](#)



EPD
The Environmental Product Declaration

download [EPD single fired wall tiles](#) and [EPD porcelain tiles](#)



SUSTAINABILITY REPORT

download [Sustainability Report](#)



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

download [Greenguard Gold](#)



HEALTHY BUILDING PRODUCTS

download [Declare single fired wall tiles](#) and [Declare porcelain tiles](#)



Tender Specifications

Quality and environmental certifications



HPD
Health Product Declaration



RECYCLED CONTENT
This range is made of 5% - 18% recycled content this way contributing to a more sustainable project.



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](#)



CSTB
Centre Scientifique et Technique du Bâtiment
download [UPEC](#)



CERTIF - Association for Certification in Portugal
Notified Body for the Regulation of Construction Products.
download [Certif single fire wall tiles](#) and [Certif UGL porcelain tiles](#)

