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 1100ºC.
The product is resistant to cracking, bending, impact, staining, chemical attack and thermal shock.

The Gravity 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 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 Gravity 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	Gravity		
Colours	Wall tiles	White, Beige, Light Grey, Oxid Green, Resin Orange	
	Floor tiles (UGL)	White, Beige, Light Grey, Grey	
Sizes	Wall tiles	35x100 RET.	
	Wall tiles - Structures	35x100 RET. _ Net, Rise	
	Floor tiles (UGL)	80x80 RET.	60x60 RET.
Finish - Surface	Wall tiles	Matt - Matt looking surface. Recommended for interior wall cladding.	
	Floor tiles (UGL)	Matt - Matt surface. Recommended for indoor flooring.	
Finish - Edge	Rectified (RET)		
Thickness	Wall tiles	8mm _ 35x100 RET.	
	Wall tiles - Structures	Net 10,0-10,6mm | Rise 8,8-10,5mm	
	Floor tiles (UGL)	8mm _ 80x80 | 7mm _ 60x60	

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. ± 0,6%, max ± 2,0 mm Rect. ± 0,3%, max ± 1,0 mm	Conform
	Side straightness		Non Rect. ± 0,5%, max ± 2,0 mm Rect. ± 0,3%, max ± 1,5 mm	Conform
	Rectangularity		Non Rect. ± 0,5%, max ± 2,0 mm Rect. ± 0,3%, max ± 1,5 mm	Conform
	Warpage - Center and edge curvature		Non Rect. ± 0,5%, max ± 2,0 mm Rect. ± 0,4%, max ± 1,8 mm	Conform
	Warpage		Non Rect. ± 0,5%, max ± 2,0 mm Rect. ± 0,4%, max ± 1,8 mm	Conform
	Thickness		± 10% , max ± 0,5 mm	Conform
Water absorption (E)		EN ISO 10545-3	E > 10%	16%
Modulus of rupture		EN ISO 10545-4	<7,5mm ≥ 15 N/mm² ≥7,5mm ≥ 12 N/mm²	19 N/mm²
Breaking strength (S)			<7,5mm S ≥ 200 N ≥7,5mm S ≥ 600 N	700 N
Linear thermal expansion		EN ISO 10545-8	As indicated by manufacturer	$\alpha \leq 7{,}5 \times 10^{-6}$ °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	-	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 BIa), EN 14411 - Annex G (Group BIa)

Technical features		Test method	Required value ISO 13006 / EN 14411	Typical Value Love Tiles
Dimensions	Lenght and width	EN ISO 10545-2	Non Rect. ± 0,6% , max ± 2,0 mm Rect. ± 0,3% , max ± 1,0 mm	Conform
	Side straightness		Non Rect. ± 0,5% , max ± 2,0 mm Rect. ± 0,3% , max ± 1,5 mm	Conform
	Rectangularity		Non Rect. ± 0,5% , max ± 2,0 mm Rect. ± 0,3% , max ± 1,5 mm	Conform
	Warpage		Non Rect. ± 0,5% , max ± 2,0 mm Rect. ± 0,4% , max ± 1,8 mm	Conform
	Thickness		± 5% max ± 0,5 mm	Conform
Water absorption (E)		EN ISO 10545-3	E ≤ 0,5%	0,1%
Modulus of rupture		EN ISO 10545-4	≥ 35 N/mm²	45 N/mm²
Breaking strength (S)			<7,5mm S ≥ 700 N	1300 N 60x60 7mm
			≥7,5mm S ≥ 1300 N	1600 N 80x80 8mm
Abrasion resistance		EN ISO 10545-6	≤ 175mm³	139mm³
Linear thermal expansion		EN ISO 10545-8	As indicated by manufacturer	$\alpha \leq 7{,}5 \times 10^{-6}$ °C^{-1} Maximum value
Thermal shock resistance		EN ISO 10545-9	Required	Resistante
Crazing resistance		EN ISO 10545-11	Required	Resistante
Frost resistance		EN ISO 10545-12	Required	Resistante
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 Resistence		DIN EN 16165 _ Annex B	As indicated by manufacturer	-
		DIN EN 16165 _ Annex A		-
		DIN EN 16165 _ Annex C		-
		AS/NZS 4586	As indicated by manufacturer	-
Shade Variation		ANSI A137.1	V0 None _ V1 Minor V2 Low _ V3 Medium V4 Major	V2
Recomended joint		Non rectified Indoor Rectified Indoor Rectified Outdoor	-	3 mm 2 mm 3 mm

It is guaranteed the compliance with the values required by norm EN 14411_Group BIa 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 - 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 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

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EPD
The Environmental Product Declaration

download EPD sinlge fires wall tiles and 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 silgle fire wall tiles and Declare porcelain tiles

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HPD
Health Product Declaration

Tender Specifications

Quality and environmental certifications

PR( )TECT Antibacterial for Life.

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

QB UPEC

CSTB
Centre Scientifique et Technique du Bâtiment

download UPEC

PRODUTO CERTIFICADO Certif

CERTIF - Association for Certification in Portugal
Notified Body for the Regulation of Construction Products.

download Certif single fire wall tiles and Certif GL porcelain tiles