# Farrino Porcelain Decking

Technical datasheet



# Farrino Parma Porcelain Decking Technical datasheet

Farrino 20mm thick Italian manufactured porcelain tiles are available in a range of styles, sizes and colours. Farrino porcelain decking is available in six finishes, shown below.

Please visit our website or our London Design Studio for more information or to see samples

### **PRODUCT FINISHES**







Oak



Cocoa

Flax

Mogno

Pearl

Smoke

#### FARRINO TILE RANGE

STYLE	COLOUR	LRV VALUE	THICKNESS	200 X 200MM
Farrino Parma Porcelain	Сосоа	23.83	20mm	601001
Deck board	Oak	38.38	20mm	601002
	Mogno	28.65	20mm	601003
	Flax	22.13	20mm	601004
	Pearl	45.07	20mm	601005
	Smoke	34.78	20mm	601006

#### PACKAGING AND WEIGHTS

TILE SIZE THICI		BOX SPECIFICATION		PALLET SPECIFICATION		
	THICKNESS PIEC BOX	PIECES/ BOX	Kg/ BOX	TILES/ PALLET	SQM/ PALLET	Kg/ PALLET
200 x 1200	20mm	2	≅33Kg	60	21m²	≅990Kg



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# Farrino Parma Porcelain Decking Technical datasheet

#### REGULARITY CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRE	D	FARRINO VALUES
Length and width	ISO 0545-2	±0.6%	±2mm	≥3400N
Thickness	ISO 0545-2	±5.0%	±0.5mm	≥2720N
Squareness	ISO 0545-2	±0.5%	±2mm	≤l.8mm
Straightness of sides	ISO 0545-2	±0.5%	±1.5mm	≥13mm
Surface flatness	ISO 0545-2	±0.5%	±2mm	≤7.0%

#### STRUCTURAL CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED	FARRINO VALUES
Water absorption	ISO 0545-3	±0.5%	±0.1%
	ASTM C373		In accordance
Breaking strength	ISO 0545-4	≥1300N	≥7,288N
Modulus of rupture	ISO 0545-4	≥35mm³	≥45 N/mm³
Breaking load class	EN1339	±0.5%	וו ∪ וו וו

#### SURFACE CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED	FARRINO VALUES
Resistance to deep abrasion	ISO 0545-6	≤175mm³	≤155mm³

#### THERMAL AND HYGROMETRIC CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED	FARRINO VALUES
Coefficient of linear thermal expansion	ISO 0545-8	Test method available	<7 x 10-6 °C-1
Thermal shock resistance	ISO 0545-9	Test method available	Guaranteed
Frost resistance	ISO 0545-12	Required	In accordance

#### CHEMICAL CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED	FARRINO VALUES
Chemical resistance	ISO 0545-13	Test method available	Guaranteed
Stain resistance	ISO 0545-14	Test method available	Guaranteed



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# Farrino Parma Porcelain Decking Technical datasheet

#### SLIP RESISTANCE

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED	FARRINO VALUES
Dynamic slider	BCRA	Test method available	>0.4
Static slider	ASTM C1028	Test method available	-
Inclined platform	DIN 51130	Test method available	RII
Pendulum test value (PTV) - dry	BS EN 14231	36+	72
Pendumul test value (PTV) - wet	BS EN 14231	36+	65

#### WORKING SIZE AND WEIGHT

TILE SIZE	ACTUAL RECTIFIED SIZE	M2/TILE	KG/TILE
200 x 1200	197 x 1195	0.24m <sup>2</sup>	≤llkg

#### LOAD EXTENSION CURVE



#### RAAFT® PORCELAIN DECKING BREAKAGE TEST RESULTS

\* Test completes with joists at 400mm centres.



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# Farrino Monza Porcelain Decking

Technical datasheet

## **PRODUCT FINISHES**



#### **AESTHETIC CHARACTERISTICS**

COLOUR	LRV VALUE	SIZE	THICKNESS	FINISH
Rustic Beige	58			
Rustic Sand	66	30 x 160cm 40 x 120cm	00	
Rustic Nut	42		ZUMM	Rectified
Rustic Grey	62			

Please see Farrino Como & Milano wind uplift solution. This can be used for Farrino Monza and if you would like any more information regarding this then please reach out.



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# Farrino Monza Porcelain Decking Technical datasheet

## **PRODUCTION TECHNOLOGY**

Porcelain stoneware, full body coloured, obtained by dry pressing of atomised selected clays and vitrified at high temperature over 1.200°. The final product complites with EN 14411m rules appendix G (valid for ceramic tiles dry pressed with E≤0.5% B1a UGL Group)

#### **TECHNICAL PROPERTIES**

CLASSIFICATION EN 14411. APPENDIX G. GROUP B1a UGL	TEST METHOD/REGULATION	CASTELVETRO PERFORMANCE
Water aborption %	UNI EN ISO 10545-3	< 0.50
Breaking strength_N		>1300
Flexion resistence_N/mm <sup>2</sup>	UNI EN 150 10545-4	> 35
Breaking strength	UNI EN 1339	UII
Resistance to deep abrasion	UNI EN ISO 10545-6	< 170 mm <sup>3</sup>
Frost resistance	UNI EN ISO 10545-12	Resistance
Resistance to high concentrations of acids and alkali		NDP
Resistance to chemical additives for domestic and pools use	UNI EN 150 10545-13	NDP
Resistance to stains	UNI EN ISO 10545-14	NDP
	B.C.R. TORTUS	>0.40
	DIN 51130	R10/R11
Sup resistance	DIN 51097	Classe A+B+C/A+B+C
	DCOF	>0.42
Reaction to fire	See decision 96/603/CE	Fireproof class A1fl-A1



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# Farrino Como & Milano Porcelain Decking

Technical datasheet

## **PRODUCT FINISHES**

## WOOD



#### FARRINO COMO & MILANO TILE RANGE

COLOUR	SIZE	THICKNESS	CODE
Brown	30 x 120cm	-	401018
Honey	30 x 120cm	-	401019
Box	30 x 120cm	-	413010
Age	30 x 120cm	-	413011

LRV data available upon request



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#### **REGULARITY CHARACTERISTICS**

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED		FARRINO VALUES
Length and width	ISO 0545-2	±0.6%	±2mm	≥3400N
Thickness	ISO 0545-2	±5.0%	±0.5mm	≥2720N
Squareness	ISO 0545-2	±0.5%	±2mm	≤l.8mm
Straightness of sides	ISO 0545-2	±0.5%	±1.5mm	≥l3mm
Surface flatness	ISO 0545-2	±0.5%	±2mm	≤7.0%

#### STRUCTURAL CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED	FARRINO VALUES	
Water absorption	ISO 0545-3	±0.5%	±0.1%	
	ASTM C373		In accordance	
Breaking strength	ISO 0545-4	≥1300N	≥7,288N	
Modulus of rupture	ISO 0545-4	≥35mm³	≥45 N/mm³	
Breaking load class	FN1339	±0.5%	U11	
	ENTODY		ТП	

#### SURFACE CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED	FARRINO VALUES	
Resistance to deep abrasion	ISO 0545-6	≤175mm³	≤155mm³	

#### THERMAL AND HYGROMETRIC CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED	FARRINO VALUES	
Coefficient of linear thermal expansion	ISO 0545-8	Test method available	<7 x 10-6 °C-1	
Thermal shock resistance	ISO 0545-9	Test method available	Guaranteed	
Frost resistance	ISO 0545-12	Required	In accordance	

#### CHEMICAL CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED	FARRINO VALUES	
Chemical resistance	ISO 0545-13	Test method available	Guaranteed	
Stain resistance	ISO 0545-14	Test method available	Guaranteed	



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#### SLIP RESISTANCE

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED	FARRINO VALUES	
Dynamic slider	BCRA	Test method available	>0.4	
Static slider	ASTM C1028	Test method available	-	
Inclined platform	DIN 51130	Test method available	RII	
Pendulum test value (PTV) - dry	BS EN 14231	36+	72	
Pendumul test value (PTV) - wet	BS EN 14231	36+	65	

#### WORKING SIZE AND WEIGHT

TILE SIZE	ACTUAL RECTIFIED SIZE	M2/TILE	KG/TILE
600 x 600	596 x 596	0.3600	≤16.88
600 x 900	596 x 1195	0.5400	≤25.33
300 x 1200	297 x 1195	0.3600	≤16.88
600 x 1200	596 x 1195	0.7200	≤33.77

#### PACKAGING AND WEIGHTS

TILE SIZE	THICKNESS	BOX SPECIFICATION			PALLET SPECIFICATION		
		PIECES/ BOX	SQM/ BOX	Kg/ BOX	TILES/ PALLET	SQM/ PALLET	Kg/ PALLET
225 x 225	20mm	12	0.720	≅67.54	45	51.84	≅1034.82
225 x 454	20mm	6	0.810	≅37.99	42	14.58	≅810.43
300 x 600	20mm	3	0.720	≅25.33	40	8.10	≅506.52
300 x 1200	20mm	2	0.720	≅26.38	36	16.88	≅1519.56
600 x 600	20mm	2	0.563	≅50.65	30	45.36	≅5673.02
450 x 900	20mm	2	0.960	≅33.77	27	17.28	≅810.43
400 x 1200	20mm	2	0.720	≅33.77	24	25.92	≅949.73
600 x 900	20mm	2	2.880	≅28.49	18	5.47	≅303.91
750 x 750	20mm	1	1.080	≅135.07	42	51.84	≅512.85
600 x 1200	20mm	1	0.540	≅33.77	15	28.80	≅1013.04
300 x 2400	20mm	1	1.440	≅28.75	36	12.26	≅759.78
900 x 900	20mm	1	0.810	≅45.02	18	25.92	≅911.74
1200 x 1200	20mm	1	0.613	≅39.99	20	34.02	≅1595.54
1200 x 2400	20mm	1	0.608	≅33.77	9	32.40	≅3039.12



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## HOW RAAFT® OVERCOMES WIND UPLIFT WITH FARRINO PORCELAIN TILES

To overcome uplift challenges on roof terraces, Raaft® has developed wind uplift resistance tiles. Products that claim to be resistant to wind uplift must meet BS EN 1991-1-4:2005++A1:2010 Eurocode 1 regulations, so we put out tiles and clips to the test. Following hte principles of BS 14437:2004, the tests were conducted by independent testers (BRE Group) on both types of clip, fixing 20mm thick Farrino+ Porcelain tiles with two clips per tile attaching them to the Raaft® Aluminium Joists. Tests were also carried out on the Pedestal Joist Connectors.

Testing applied an uplift pressure of 4536N/m2 and the products were tested to destruction, no partial safety factors were used.

The results were as follows:

• Using stainless steel clips, the characteristic wind uplift resistance per clip was 738.1N

- Using nylon clips the characteristic wind uplift per clip was 51.6N
- By also fixing the tile with Formoa 017FE hybrid polymer adhesive the indicative wind uplift resistance per clip was 2943N.
- The pedestal joist connector returned a wind uplift resistance of 71.0N

The clip and groove wind uplift resistance system is also featured on our Terrafina Composite. Wood polymer Decking and Farrino Porcelain Decking. Please reach out if you would like to view the full BRE report.





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# Farrino Porcelain Decking Technical datasheet

## INSTALLATION INFORMATION

By mounting on adjustable pedestal systems or solid concrete bases. If mounted on adjustable pedestals over 100mm in height, an optional fibreglass mesh is available upon request.

## SUSTAINABILITY

Farrino porcelain tiles are manufactured by dry pressing and kilning a mixture of naturally occuring minerals and clays to create a stable and durable product with long-life expectancy.

Porcelain tiles have a lower environmental impact than many other finishing materials: they will not act as 'sink' absorbing volatile organic compounds (VOCs) or other chemicals from surrounding materials, nor are they a source of harmful contaminants. They can also be maintained without the need for solvent-based cleaners.

## **PRODUCT MAINTENANCE**

Our Farrino tiles are easy to clean and resist most chemicals. They're UV stable and only have 0.01% porosity. It's a good idea to clean them once or twice a year, depending on local weather conditions.

Use a high-pressure cleaner from at least 20cm away or scrub with a mild all-purpose cleaner and water. For daily cleaning, just sweep regularly and rinse with water, a soft brush, and a mild cleaner or suds.

## FIRE PROTECTION

Farrino tiles are made using porcelain which does not burn and is not a fire hazard.

## PROTECTIVE EQUIPMENT

We recommend that PPE (Personal Protective Equipment) is used when installing the Farrino tiles:

- a) Good strong safety boots/shoes to protect the feet.
- b) Protective eyewear such as safety glasses.
- c) Strong gloves to protect the hands.
- d) If using loud cutting equipment then ear plugs or defenders should be worn.

# STORAGE AND HANDLING

In preparation for delivery, Farrino tiles are securely packed into cardboard boxes to ensure no movement during transit.

Depending on the size and weight of the consignment they may be palletised. Until the point of installation, the tiles should be stored fully packed in a dry environment.

# STABILITY

Farrino porcelain tiles are high performance products that are hard wearing, frost proof, non-slip and UV stable. They are easy to clean and resistant to mildew, moss and algae making them exceptionally suitable for external terrace and balcony areas and public outdoor spaces.



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### ACCESSORIES

#### VENICE CLIP

The genesis of our product stemmed from valuable feedback received from a domestic building grappling with water pooling issues on their porcelain tiles. After meticulous contemplation and design efforts spanning several months, the solution was crafted.

The predicament of water pooling takes on greater significance with the introduction of new materials to the UK market. Despite tiles boasting ratings of R11 or higher, the accumulation of water transforms into ice during winter, prompting the exclusion of porcelain from specifications on roof terraces nationwide.

Enter our innovative product, poised to address this challenge effectively. Raaft® now offers a solution enabling water drainage from tiles within a precise 1-hour timeframe, aligning seamlessly with NHBC 9.1.15 guidelines. According to these standards, standing water post-rain should neither exceed 5mm in depth nor cover an area surpassing 1m<sup>2</sup>. We prioritize subtlety, employing transparent materials potentially matching Raaft®'s specified tiles. The Venice clip is designed to break the surface tension of the tile, similar to a grout joint where porcelain tiles are installed on cement. When porcelain is installed onto a loose laid system the joints are exposed which meant the files fill with water due to surface tension.

The product is flush to the surface reducing the chances of feet being caught.

During installation, especially in wind uplift scenarios, our design incorporates a clip securely inserted into the groove. This not only ensures a snug fit but also acts as a protective 'buffer' between tiles, facilitating removal and reinstallation without compromising structural integrity.



Venice Clip Push – this item serves as a universal solution for all porcelain within the RAAFT® collection.



Venice Clip Uplift



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