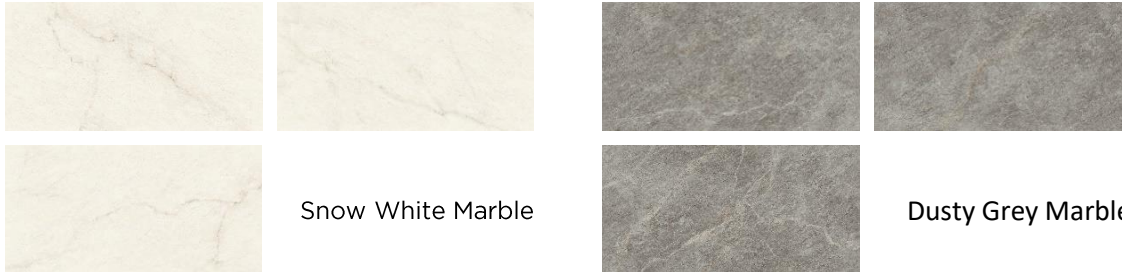


# Marble Effect Marbello Porcelain Paving



## Designs



**Please note:** Colour shades may differ between batches. If you need a specific batch to match a previous order for a project, please inform us when placing your order, although availability can't be guaranteed.

## Dimensions & Packing Details



**Weight:** 44.8kg/m<sup>2</sup>

## Packing Details

Nominal Size	Working Size	Pieces X Box	Sqm X Box	Boxes X Pallet	Kg X Box	Sqm X Pallet
600x1200	595x1195	1	0.72	35	33.35	25.2

## Regularity Characteristics

Technical Features	Norms	Required Standard	Performance Value
Length and width	ISO 10545-2	± 0.6% or ± 2mm (*)	± 0.3% / ± 1mm (*)
Thickness		± 5% / 0.5mm (**)	± 5% / 0.5mm (**)
Straightness of sides		± 0.5% / ± 1.5mm (***)	± 0.3% / 0.8mm (***)
Rectangularity (Measurement only on short edges when L/l ≥ 3)		± 0.5% / ± 2mm (****)	± 0.3% / ± 1.5 mm
Surface flatness		c.c. ± 0.5% / 2mm e.c. ± 0.5% / 2mm w. ± 0.5% / 2mm	Not applicable to "strong" structures

## Structural Characteristics

Technical features	Norms	Required Standard	Performance Value
Water absorption level (in% by mass)	ISO 10545-3	E ≤ 0,5% Individual Maximum 0,6%	≤0.1%
	ASTM C373-18	Requirement ANSI A137.1-2017 Water Absorption Max < 0,5%	≤0.5%

## Bulk Mechanical Characteristics

Technical features	Norms	Required Standard	Performance Value
Breaking strength	ISO 10545-4	$S \geq 1300 \text{ N}$	$S \geq 10000 \text{ N}$
Modulus of rupture		$R \geq 35 \text{ N/mm}^2$	$R \geq 45 \text{ N/mm}^2$
Bending and breaking load resistance (4)(5)	EN 1339 Annex F	-	For specific values check the table below named "Physical-mechanical features in accordance with EN 1339"
Impact resistance, as coefficient of restitution	ISO 10545-5	Declared value	$\geq 0.55$

## Surface Mechanical Characteristics

Technical features	Norms	Required Standard	Performance Value
Impact resistance, as coefficient of restitution	ISO 10545-6	$\leq 175 \text{ mm}^3$	$\leq 150 \text{ mm}^3$

## Thermal and Hygrometric Characteristics

Technical features	Norms	Required Standard	Performance Value
Coefficient of linear thermal expansion	ISO 10545-8	Declared value	$\leq 7 \text{ MK}^{-1}$
Thermal shock resistance	ISO 10545-9	Test passed in accordance with ISO 10545-1	Resistant
Moisture expansion (in mm/m)	ISO 10545-10	Declared value	$\leq 0.01\%$ (0.1mm/m)
Frost resistance	ISO 10545-12	Test passed in accordance with ISO 10545-1	Resistant

## Physical Characteristics

Technical features	Norms	Required Standard	Performance Value
Bond strength/adhesion for improved cementitious adhesives	EN 1348	Declared value	$\geq 1.0 \text{ N/mm}^2$ (Class C2 - EN 12004)
Reaction to fire	-	Class A1 or A1 <sub>fl</sub>	A1 - A1 <sub>fl</sub>

## Chemical Characteristics

Technical features	Norms	Required Standard	Performance Value
Resistance to household chemicals and swimming pool salts		Minimum B class	A
Resistance to low concentrations of acids and alkalis	ISO 10545-13	Declared class	LA
Resistance to high concentrations of acids and alkalis		Declared class	HA
Resistance to staining, for unglazed tiles	ISO 10545-14	Declared class	5

## Safety Characteristics

Technical features	Norms	Required Standard	Performance Value
Shod Ramp Test	DIN EN 16165 ANNEX B (EX DIN 51130)	Declared value	R11
Barefoot Ramp test	DIN EN 16165 ANNEX A (EX DIN 51097)	Declared value	A+B+C
Pendulum friction Test	BS EN 16165 ANNEX C (EX BS 7976)	PTV $\geq 36$ classifies the surface as "low slip risk"	$\geq 36$ Dry $\geq 36$ Wet
	AS 4586	Declared Classification of the pedestrian surface	Class P4
	UNE 41901 EX:2017	Declared value	Class C3
Coefficient of friction (COF)	B.C.R.A. Rep. CEC/81	- Min. Dec. 236/89 of 14/06/89 - $\mu > 0.40$ for a sliding leather element on a dry floor	$> 0.40$ Dry (Asciutto) $> 0.40$ Wet (Bagnato)

		- $\mu$ > 0.40 for a sliding hard rubber element on a wet floor	
Dynamic coefficient of friction (DCOF)	ANSI A 326,3		> 0.55 Wet

## Physical-mechanical features in accordance with EN 1339

Technical features	EN 1339 standard	Performance Value
Water absorption	Annex E	< 0,1%
Bending strength / Breaking load	Annex F	Marking $\geq$ U4 60x120
Frost resistant in the presence of defrosting salts	Annex D	Resistant

(\*) Anti-slip performance is guaranteed at the time of delivery of the product.

(\*) The permissible deviation, in % or mm, of the average size for each tile (2 or 4 sides) from work size (W).

(\*\*) The permissible deviation, in % or mm, of the average thickness for each tile from the work size thickness (W).

(\*\*\*) The maximum permissible deviation from straightness, in % or mm, related to the corresponding work sizes (W).





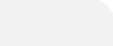
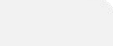
(\*\*\*\*) The maximum permissible deviation from rectangularity, in % or mm, related to the corresponding work sizes (W).

c.c. The maximum permissible deviation from centre curvature, in % or mm, related to the diagonal calculated from the work sizes (W).

e.c. The maximum permissible deviation from edge curvature, in % or mm, related to the corresponding work sizes (W).

w. The maximum permissible deviation from warpage, in % or mm, related to the diagonal calculated from the work sizes (W).

## Compatible Systems

 <b>BalcaSmart®</b> Pedestal Paving System  Straightforward, robust paving system for metal-frame balconies	 <b>BalcaSmart®</b> Rail Paving System  Premium, versatile paving system for waterproofed substrates	 <b>TerraSmart®</b> Pedestal Paving System  Straightforward, robust paving system for waterproofed substrates
 <b>TerraSmart®</b> Rail Paving System  Premium, versatile paving system for waterproofed substrates	 <b>TerraSmart®</b> Pedestal Paving System  Straightforward, robust paving system for waterproofed substrates, <b>where non-combustibility isn't required</b>	 <b>TerraSmart®</b> Rail Paving System  Premium, versatile paving system for waterproofed substrates, <b>where non-combustibility isn't required</b>

## Got Questions?

Visit [www.rynogroup.co.uk](http://www.rynogroup.co.uk) or call us today on **+44 (0)203 967 3500** or reach out on [sales@rynogroup.co.uk](mailto:sales@rynogroup.co.uk).