



# HARGRAVE

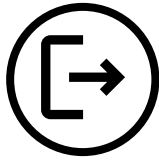
TECHNICAL SPECIFICATION



# This Range

Beautiful range of slate-effect porcelain tiles, suitable for interiors and exteriors. From inside to out tiles, in a 10mm and 20mm thickness.

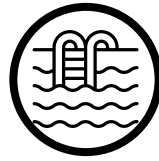
Suitable for:



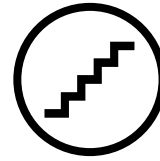
Exterior



Heavy Footfall



Pool Edging

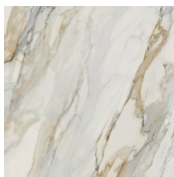


Stairs

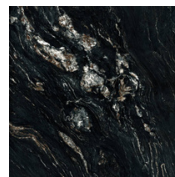
Sizes

2780 x 1200 x 6mm rectified natural  
 2780 x 1200 x 6mm rectified polished  
 1200 x 1200 x 9mm rectified natural  
 1200 x 1200 x 9mm rectified polished  
 600 x 600 x 9mm rectified natural  
 600 x 600 x 9mm rectified polished  
 600 x 300 x 9mm rectified natural  
 600 x 300 x 9mm rectified polished  
 mosaic 300 x 300 x 9mm rectified (36 piece) natural  
 mosaic 300 x 300 x 9mm rectified (36 piece) polished  
 chevron 540 x 95 x 9mm rectified natural  
 linear 600 x 70 x 9mm rectified  
 square 70 x 70 x 9mm rectified  
 skirting 600 x 100 x 9mm rectified natural  
 skirting 600 x 100 x 9mm rectified polished

Colours



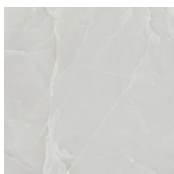
Calacatta Gold



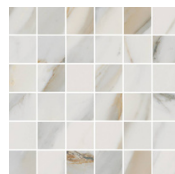
Belve Black



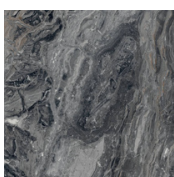
Marble Caprice



Clear Onix



Mosaic



Silver Wave



Patterns

# Technical Details - 6mm

Technical Features	Test Method	Required Values	Average Values
Water Absorption	ISO 10545-3	≤ 0,5%	<b>0,1%</b>
Modulus of rupture	ISO 10545-4	≥ 35 N/mm <sup>2</sup>	<b>50 N/mm<sup>2</sup></b>
Deep Abrasion Resistance	ISO 10545-6	≤ 175 mm <sup>3</sup>	<b>Compliant</b>
Linear Thermal Expansion	ISO 10545-8	No provision	<b><math>\alpha \leq 7 \times 10^{-6} \text{ } ^\circ\text{C}^{-1}</math></b>
Stain Resistance	ISO 10545-14	Classe / Class 3 Min.	<b>5 Resistant for Natural &amp; 3 for Polished</b>
Chemical Resistance (*)	ISO 10545-13	As indicated by manufacturer	<b>LA-HA Resistant for Natural &amp; LB-HB for Pol</b>
Frost Resistance	ISO 10545-12	No alteration	<b>Resistant</b>
Slip Resistance	BS 7976:2002	-	-
Shade Variation		As indicated by the manufacturer	<b>V2 Clear Onix Slight Variation V3 Belve Black Moderate Variation V4 Marble Caprice Substantial Variation</b>
Thickness	ISO 10545-2	6mm	<b>Compliant</b>

# Technical Details - 6mm

Technical Features	Test Method	Required Values	Average Values
Fire Reaction	EN 13823 EN 9239-1	CPR (UE) 305/2011, 2000/147/CE, UNI EN 13501-1	<b>Class A1 (wall)</b> <b>Class A1fl (floor)</b>
Thermal conductivity	EN 12524	-	<b><math>\lambda = 1,3 \text{ W/m}^\circ\text{K} /</math></b> <b>0.7 BTU/ft h °F</b>
Recommended minimum joint (**)		RECT (Interior)	<b>2mm (RECT)</b> <b>circa/approx</b>
<p>(*) Excluding hydrofluoric acid and its derivatives. (**) The width of grout joints must be established by the installation supervisor, unless grout widths are regulated by national laying standards.</p>			

# Technical Details - 9mm

Technical Features	Test Method	Required Values	Average Values
Water Absorption	ISO 10545-3	≤ 0,5%	<b>0,05%</b>
Breaking Strength	ISO 10545-4	≥ 1300 N	<b>Thick. 9 mm: 1800 N Thick. 20 mm: 13600 N</b>
Modulus of rupture	ISO 10545-4	≥ 35 N/mm <sup>2</sup>	<b>50 N/mm<sup>2</sup></b>
Deep Abrasion Resistance	ISO 10545-6	≤ 175 mm <sup>3</sup>	<b>145 mm<sup>3</sup></b>
Linear Thermal Expansion	ISO 10545-8	No provision	<b><math>\alpha \leq 7 \times 10^{-6} \text{ } ^\circ\text{C}^{-1}</math></b>
Stain Resistance	ISO 10545-14	Classe / Class 3 Min.	<b>5 Resistant</b>
Chemical Resistance (*)	ISO 10545-13	As indicated by manufacturer	<b>LA-HA Resistant</b>
Frost Resistance	ISO 10545-12	No alteration	<b>Resistant</b>
Slip Resistance	BS 7976:200 2	-	<b>PTV 36+ wet (Sl. 96 - Sl. 55) Grip - Exterior</b>
Thickness	ISO 10545-2	9mm	<b>Compliant</b>

# Technical Details

Technical Features	Test Method	Required Values	Average Values
Shade Variation	ANSI A137.1	As indicated by manufacturer	<b>V2 Clear Onix Slight Variation V3 Belve Black Moderate Variation V4 Marble Caprice Substantial Variation</b>
Fire Reaction	EN 13823 EN 9239-1	CPR (UE) 305/2011, 2000/147/CE, UNI EN 13501-1	<b>Class A1 (wall) Class A1fl (floor)</b>
Thermal conductivity	EN 12524	-	<b><math>\lambda = 1,3 \text{ W/m}^\circ\text{K} / 0.7 \text{ BTU/ft h}^\circ\text{F}</math></b>
Recommended minimum joint (**)		RECT	<b>2mm (RECT)</b>

(\*) Excluding hydrofluoric acid and its derivatives. (\*\*) The width of grout joints must be established by the installation supervisor, unless grout widths are regulated by national laying standards.

# Technical Details

Size	Pz/Box	Kg/Box	Mq/Box	Box/Pal	Kg/Pal	Mq/Pal
2780 x 1200 x 6mm rectified	1	47	3.366	18	846	60.048
1200 x 1200 x 9mm rectified	1	31.8	1.44	36	1017.60	46.08
600 x 1200 x 9mm rectified	2	31.8	1.44	32	1144.8	51.84
600 x 600 x 9mm rectified	4	31.8	1.44	32	1017.60	46.08
600 x 300 x 9mm rectified	9	36	1.62	32	1152	51.84
mosaic 300 x 300 x 9mm rectified (36 piece)	4	7.5	0.36	60	450	21.6
chevron 540 x 95 x 9mm rectified	8	9.215	0.4104	64	589.76	26.266
linear 600 x 70 x 9mm rectified	16	13.775	0.672	40	551	26.88
square 70 x 70 x 9mm rectified	16	1.615	0.0784	456	736.44	35.75
skirting 600 x 100 x 9mm rectified	12	14.5	0.72	60	870	43.2



**Hargrave Calacatta Gold**

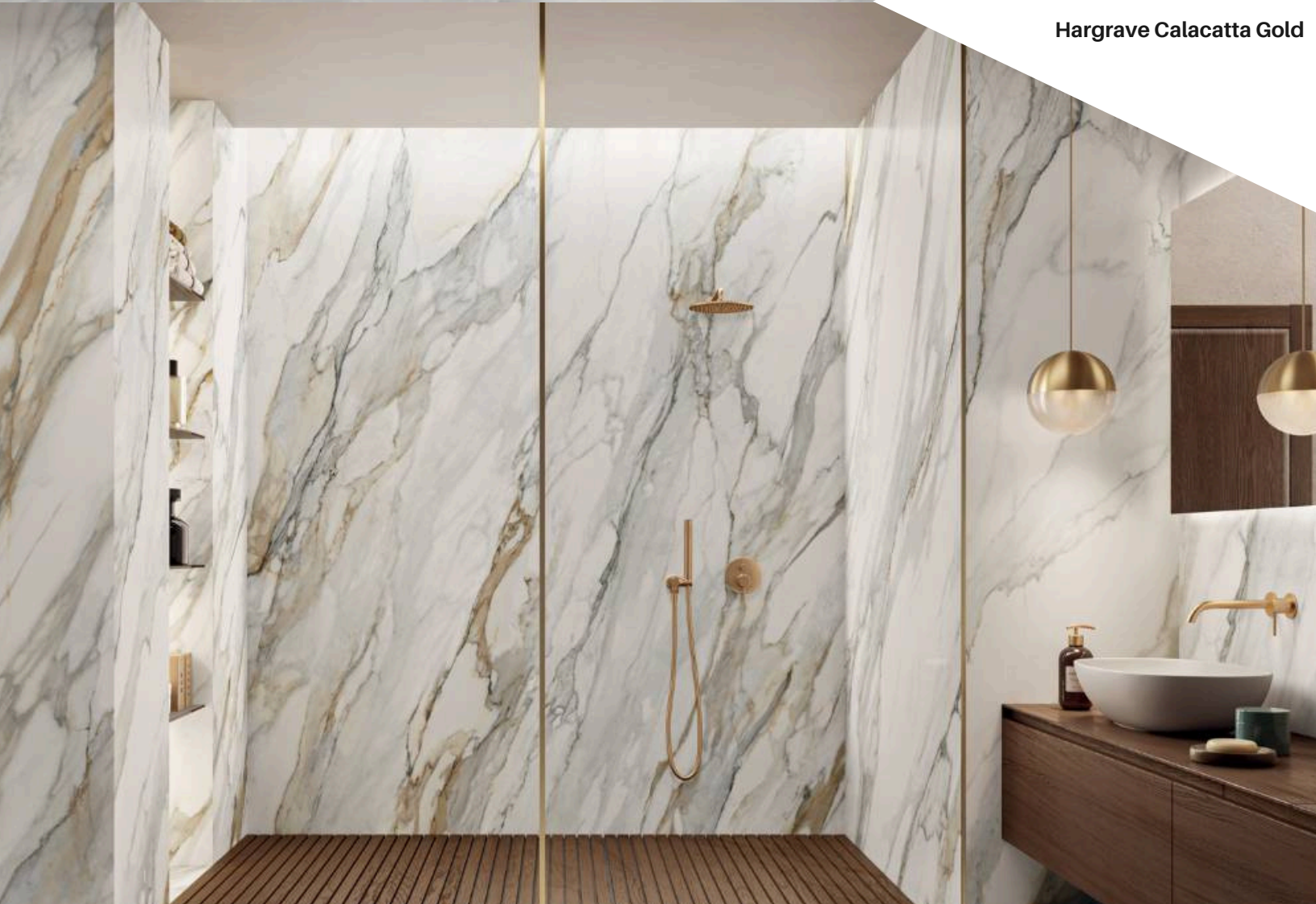
**Hargrave Marble Caprice**







**Hargrave Clear Onix**



**Hargrave Calacatta Gold**



**Hargrave Silver Wave**



**Hragrave Belve Black (floors)**  
**Hargrave Calacatta Gold (walls)**



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