



**POLAR
BLACK**

FULL BODY PORCELAIN TILE

CREATED BY NIRO GRANITE

POLAR BLACK

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“

Polar Black is the soul of black granite where its original roots from India, home of the historic trade routes, as well as, vast culture. Polar Black with its full body porcelain, peaks of its excellent quality that carries an elegant look on the matt and structured surfaces, beautifies the environment in your home and office surroundings and gives the absolute touches of harmony. It has light veins of pearly white which creates a distinctive look and preciousness to the final touch. Available in two sizes of 60 x 30 cm and 60 x 60 cm, and 5 simple and natural colour tones.

”

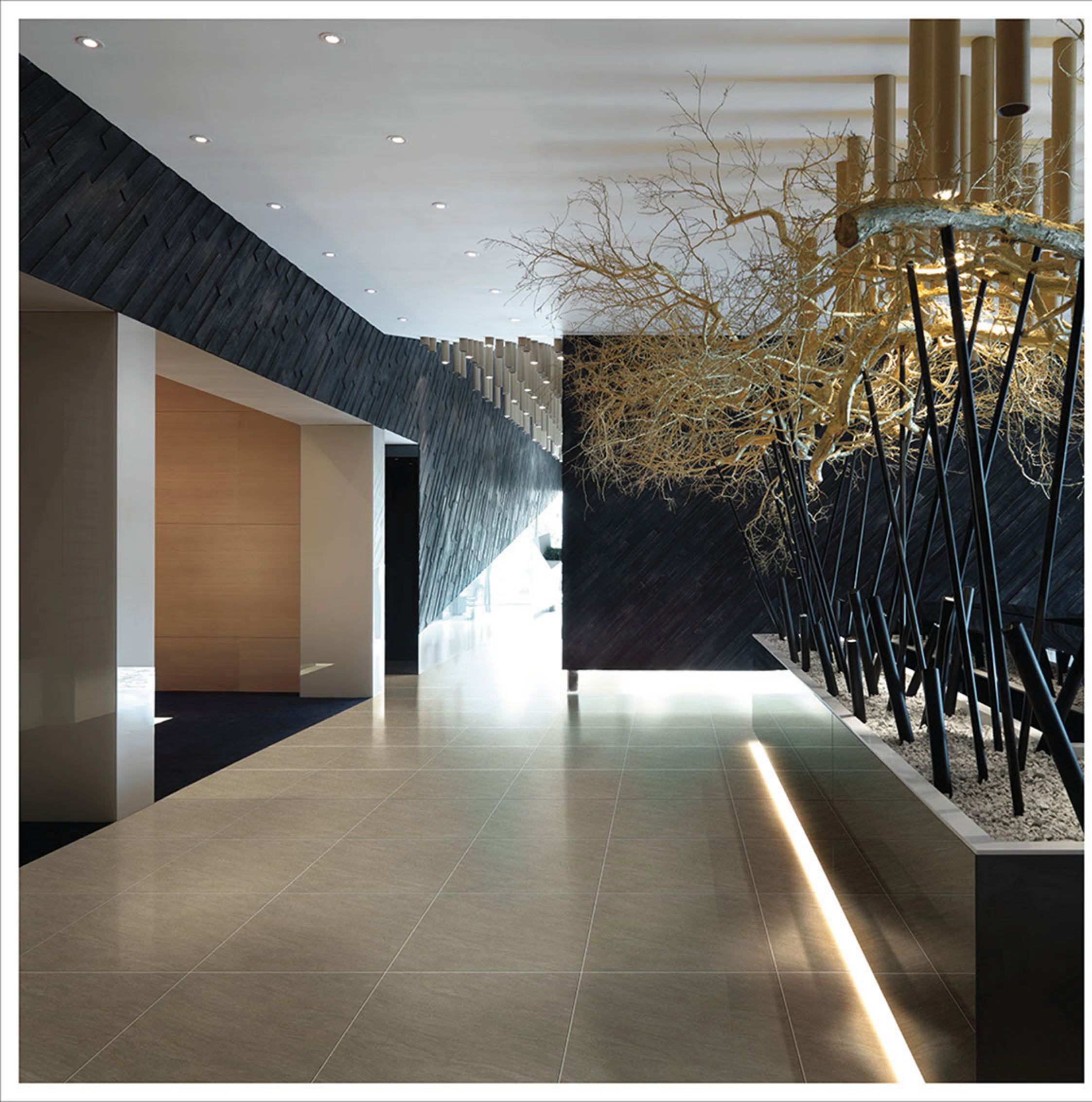
POLAR BLACK ■



**POLAR
BLACK**
GPB01 | FOG
MATT SURFACE

POLAR BLACK

**POLAR
BLACK**
GPB02 | COBBLESTONE
MATT SURFACE



POLAR BLACK

**POLAR
BLACK**
GPB04 | FROST
STRUCTURED SURFACE



POLAR BLACK ■



**POLAR
BLACK**
GPB05 | CASTLEROCK
MATT SURFACE

GPB01 FOG



Matt 60cm x 30cm

GPB02 COBBLE STONE



Matt 60cm x 30cm

GPB04 FROST



Matt 60cm x 30cm

GPB05 CASTLE ROCK



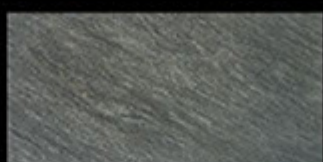
Matt 60cm x 30cm



Structured 60cm x 30cm



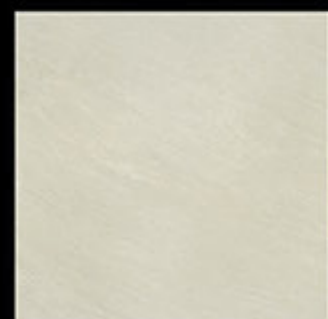
Structured 60cm x 30cm



Structured 60cm x 30cm



Structured 60cm x 30cm



Matt 60cm x 60cm



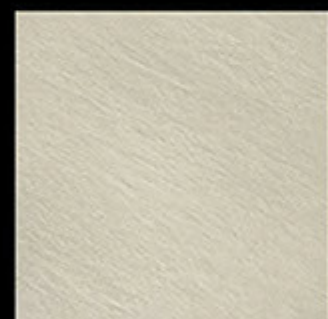
Matt 60cm x 60cm



Matt 60cm x 60cm



Matt 60cm x 60cm



Structured 60cm x 60cm



Structured 60cm x 60cm



Structured 60cm x 60cm



Structured 60cm x 60cm



Mosaico 60cm x 30cm



Mosaico 60cm x 30cm



Mosaico 60cm x 30cm



Mosaico 60cm x 30cm



Mosaico A 60cm x 30cm



Mosaico B 60cm x 30cm



TECHNICAL SPECIFICATIONS				
DESCRIPTION	STANDARD TEST	MEASUREMENT UNIT	ISO STANDARD REQUIREMENT	NIRO GRANITE
Length & Width	ISO 10545 -2	mm	±0.6% Max	±0.30% Max
Thickness	ISO 10545 -2	mm	±5.0% Max	±5.0% Max
Sides Straightness	ISO 10545 -2	mm	±0.5% Max	±0.25% Max
Rectangularity	ISO 10545 -2	mm	±0.5% Max	±0.25% Max
Flatness: a) Centre Curvature	ISO 10545 -2	mm	±0.5% Max	±0.20% Max / Max 2.0mm
b) Edge Curvature	ISO 10545 -2	mm	±0.5% Max	±0.20% Max / Max 2.0mm
c) Warpage	ISO 10545 -2	mm	±0.5% Max	±0.20% Max / Max 2.0mm
Surface Quality	ISO 10545 -2	One Major Area of Tiles	≥ 95% free from visible defect	Comply
Water Absorption	ISO 10545 -3	Mass	≤0.5%	≤0.20%
Breaking Strength	ISO 10545 -4	N	≥ 1300 N	≥ 1300 N
Modulus of Rupture	ISO 10545 -4	N/mm ²	≥ 35 N/mm ² Individual ≥ 32 N/mm ²	≥ 35 N/mm ² Individual ≥ 32 N/mm ²
Abrasion Resistance				
a) Deep Abrasion for unglazed tiles	ISO 10545 -6	mm ³	≤ 175 mm ³	≤ 160 mm ³
b) Surfaces Abrasion for glazed tiles	ISO 10545 -7	Visual Check	Manuf. to state abrasion class, cycle and passed	≥ PEI 3 (Dependent on product type)*
Crazing Test (glazed tiles)	ISO 10545 -11	Visual Check	No Sign of Crazing	No Sign of Crazing
Frost Resistance	ISO 10545 -12	Visual Check	Required	No Visible Crack
Chemical Resistance				
a) Low concentrations	ISO 10545 -13	Visual Check	Manuf. To State	Class A Class B (For Polished Tile)
b) Household chemicals and swimming pool salts	ISO 10545 -13	Visual Check	≥ Class B	Class A Class B (For Polished Tile)
Stain Resistance				
a) For unglazed tiles	ISO 10545 -14	Visual Check	Manuf. to State	≥ Class 3
b) For glazed tiles	ISO 10545 -14	Visual Check	≥ Class 3	≥ Class 3
Slip Resistance (Excluding Polished, Lappato and Matt Satin finishing)	AS/NZS 4586 App. A	P0 to P5	Manuf. to State	Wet Pendulum ≥ P2 (Dependent on product type)*

The technical specifications is only for rectified tiles. * Refer to test report for specific test result.





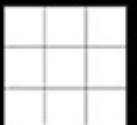
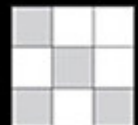
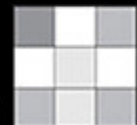

Each different tiles series are produced to meet different performance requirements. For specific product technical performance, please request from Niro Granite sales team or their agent or distributor.

Colour Variations: Since the colour reproduction in this printed piece will vary from the actual tile colours, final selection should be made from tile samples. Colour, shade and glaze variations may exist due to the inherent characteristics of porcelain tile.



Due to the low porosity of porcelain tiles, an Improved High Performance Cementitious adhesive in accordance to BS EN 12004 & ISO 13007-1 is highly recommended for proper installation. Products that meet this standard are available amongst leading adhesive manufacturers. Please seek expert advice from adhesive manufacturers for proper selection and application.

SHADE AND TONALITIES

 U1 UNIFORM FROM TILE TO TILE	 U2 SLIGHTLY NOTICEABLE FROM TILE TO TILE	 U3 MODERATELY NOTICEABLE FROM TILE TO TILE	 U4 DISTINCTLY NOTICEABLE FROM TILE TO TILE
 Uniform from tile to tile The range of colours and tones within the same shade is relatively uniform from tile to tile. Minimal to no difference among pieces from the same production run.	 Slightly noticeable from tile to tile The range of colours and tones within the same shade is slightly noticeable from tile to tile. Clearly distinguishable differences in design or pattern with similar or slight change in colour tones.	 Moderately noticeable from tile to tile The range of colours and tones within the same shade is moderately noticeable from tile to tile. Clearly distinguishable differences in design or pattern.	 Distinctly noticeable from tile to tile The range of colours and tones within the same shade is distinctly different from tile to tile. Random colour differences from tile to tile, so that one tile may have totally different colour from that of other tiles. Final installation can be unique.

