GIRGRES

porcelain tiles

Wall: Classic Carrara Size: 800x1600mm Surface: Polished



CLASSIC CARRARA

Total Faces | 6

Available Surface
Polished / Digimatt

800x1600mm
9mm thickness

KASHMIR WHITE

Total Faces | 5

Available Surface
Polished / Digimatt

800x1600mm
9mm thickness



Wall: Kashmir White Size: 800x1600mm Surface: Polished

Floor: Mountain White Size: 800x1600mm Surface: Polished



MOUNTAIN WHITE

Total Faces | 4

Available Surface
Polished / Digimatt

800x1600mm
9mm thickness

LUPARA BIANCO

Total Faces | 3

Available Surface
Polished / Digimatt

800x1600mm
9mm thickness



Floor: Lupera White Size: 800x1600mm Surface: Polished

Wall & Table Top: Mountain White Size: 800x1600mm Surface: Polished



ONYX NATURAL BIANCO

Total Faces | 6

Available Surface
Polished / Digimatt

800x1600mm
9mm thickness

NEEV GLACIER ONYX BIANCO

Total Faces | 3

Available Surface
Polished / Digimatt

800x1600mm
9mm thickness



Floor: Neev Glacier Onyx Bianco Size: 800x1600mm Surface: Polished

Floor: Classic Carrara Size: 1200x1200mm Surface: Polished



CLASSIC CARRARA

Total Faces | 8

Available Surface
Polished

1200x1200mm
9mm thickness

KASHMIR WHITE

Total Faces | 4

Available Surface
Polished

1200x1200mm
9mm thickness



Floor: Kashmir White Size: 1200x1200mm Surface: Polished

Floor: Himalaya Crstal Ivory Size: 1200x1200mm Surface: Polished



HIMALAYA CRYSTAL IVORY



Total Faces | 4



Available Surface
Polished

1200x1200mm
9mm thickness

LUPARA BIANCO



Total Faces | 6

Available Surface
Polished

1200x1200mm
9mm thickness

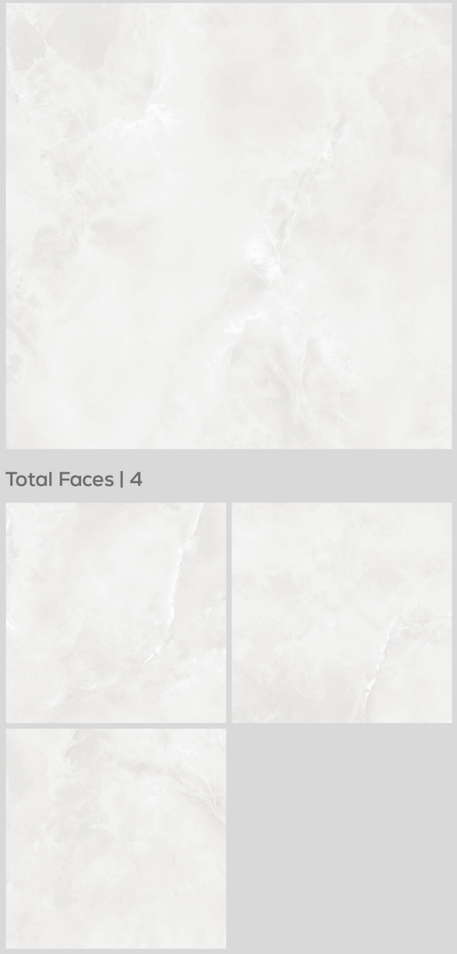


Floor: Luparo Bianco Size: 1200x1200mm Surface: Polished

Floor: Himalaya Crstal Ivory Size: 1200x1200mm Surface: Polished



MOUNTAIN WHITE

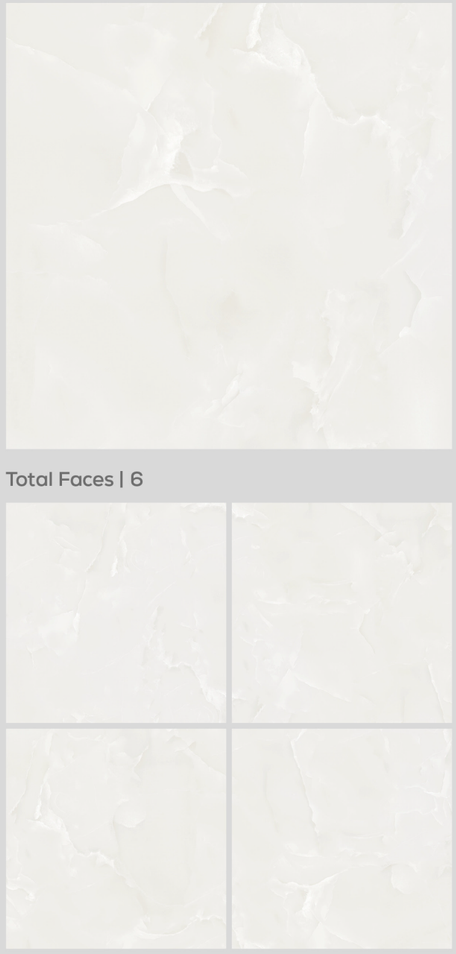


Total Faces | 4

Available Surface
Polished

1200x1200mm
9mm thickness

NEEV GLACIER ONYX BIANCO



Total Faces | 6

Available Surface
Polished

1200x1200mm
9mm thickness

slabtile



Floor: Neev Glacier Onyx Bianco Size: 1200x1200mm Surface: Polished

CINETO BIANCO ENDLESS



Total Faces | 4



Available Surface
Polished

1200x1800mm
9mm thickness

slabtile



Wall: Cineto Bianco Endless Size: 1200x1800mm Surface: Polished

Technical Specification

SR.NO	PHYSICAL PROPERTIE	TEST METHOD	TEST REQUIREMENT	PORCELAIN SLAB PERFORMANCE	REMARKS
(1) DIMENSION AND SURFACE QUALITY					
1.1	Deviation in length (L) & width (W)				
	(a) The Deviation in percentage of the average size of each tile (2 or 4 sides) from the work size (w)	ISO10545-2	± 1MM	Avg + 0.20mm Avg -0.00mm	Complies
	(b) The deviation in percentage of the average siz of each tile (2 or 4 sides) from the average size of the 10 test specimen (20 or 40 side)"			Avg + 0.14mm Avg -0.00mm	
1.2	Thickness				
	The deviation in percent of the average thickness of each tile from the worksize thickness	ISO10545-2	± 1MM	Avg + 0.00mm Avg -0.15mm	Complies
1.3	Straightness of sides				
	The maximum deveiation from rectangularity in percent related to corresponding work size	ISO10545-2	± 0.8MM	Max + 0.14mm Max - 0.16mm	Complies
1.4	Rectangularity				
	The maximum deveiation from rectangularity in percent related to corresponding work size	ISO10545-2	± 0.8MM	Max + 0.16mm Max - 0.17mm	Complies
1.5	Surface flatness				
	(a) Centre curvature Centre curvature related to diagonal calculatedfrom the work size.	ISO10545-2	± 1.8 mm	Max + 0.12 mm Max - 0.00 mm	Complies
	(b) Edge curvature Edge Curvature related to the corresponding work size		± 2 mm	Max + 0.14 mm Max - 0.00 mm	
	(c) Warpage Warpage related to diagonal calculated from the work size.		± 1.8 mm	Max + 0.12 mm Max - 0.00 mm	
(2) PHYSICAL PROPERTIES					
2.1	Water absorption (%)				
	(a) 0.109 % (b) 0.111% (c) 0.118% (d) 0.105% (e) 0.108%	ISO10545-3	Require as per saso ISO 13006 ‹ e 0.50% Individual maximum 0.60%	Avg. 0.11%	Complies
2.2	Modulus of rupturee (MOR)				
	(a) 38.29 N/mm² (b) 39.43 N/mm² (c) 39.23 N/mm² (d) 37.57 N/mm² (e) 37.32 N/mm² (f) 42.46 N/mm² (g) 40.51 N/mm² (h) 39.37 N/mm²	ISO10545-4	Minimum 35 Individual maximum 32	Avg. 39.27 N/mm²	Complies
2.3	Breaking strength in (N)				
	(a) 1716.48 N (b) 1795.95 N (c) 1788.15 N (d) 1692.60 N (e) 1787.15 N (f) 1959.75 N (g) 1887.60 N (h) 1816.91 N	ISO10545-4	Require Thickness ≥ 7.5 mm Not less than 1300	Avg. 1805.57 N	Complies
2.4	Crazing resistance	ISO10545-11	No crazing in two cycle one hour duration at a steam pressure of 750±20Kpa 6 Nos of tiles ware subjected to autoclaving at a steam pressure of 750±20Kpa of saturated steam for two hour consisting of two cycle. None of the tiles show any sign of the crazing on the glaze surface and the lot pass the test	PASSED THE TEST	Complies
2.5	Thermal shock resistance	ISO10545-9	Require 10 Cycle min	15/145°c 10 cycle	Complies
2.6	Co Efficient of linear thermal expantion				
	Expantion from ambient temperature to 100 C (K-1)	ISO10545-8	Require 9X10 ¯6 Max	4.74X10 ¯6	Complies
2.7	Resistance to surface abrasion	ISO10545-7	Visual failure was observed at 6000 revolution when the tiles ware subjected to abrasion stage of 150,600,750,1500,2100 upto 6000 revolution, 2100 revolution pass.	2100 revolution pass	Class IV
2.8	Moisture expansion mm/m	ISO10545-10	0.02 mm/m max	No expansion	Complies
2.9	Scratch Hardness of surface (MOH's Scale)	ISO13630-13	5 Moh's scal	5 Moh's	Complies
2.10	Bulk Density	ISO10545-3	2.2MIN	2.2764g/cc	Complies
2.11	Impact Resistance	ISO10545-5	0.55 Min	0.57	Complies
(3) CHEMICAL PROPERTIES					
3.1	"House hold chemical resistance Ammonium chlorine solution 100 G/L"	ISO10545-13	Min Class-GC	Class GA	No visual changes observed after impression for 24 hours pencil lines removed with wet wiping removed
3.2	"Swimming Pool Salt Sodium hypochlorite solution, 20 mg/L"	ISO10545-13	Min Class-GC	Class GA	No visual changes observed after impression for 24 hours pencil lines removed with wet wiping removed
3.3	Acid & alkalies				
3.3 (A)	Low concentration (L)				
	(a) Hydrochloric acid solution 3% (V/V)	ISO10545-13	Min Class-GLC	Class GLA	No visual changes observed after impression for 24 hours pencil lines removed with wet wiping removed
	(b) Citric acid soln. 100gm/l	ISO10545-13	Min Class-GLC	Class GLA	No visual changes observed after impression for 24 hours pencil lines removed with wet wiping removed
	(c) Potassium Hydroxide soln 30 gm/l	ISO10545-13	Min Class-GLC	Class GLA	No visual changes observed after impression for 24 hours pencil lines removed with wet wiping removed
3.3 (B)	High concentration (H)				
	(a) Hydrochloric acid solution 18% (V/V)	ISO10545-13	Min Class-GHC	Class GLA	No visual changes observed after impression for 24 hours pencil lines removed with wet wiping removed
	(b) Lactic Acid Soln. 5% (V/V)	ISO10545-13	Min Class-GHC	Class GLA	No visual changes observed after impression for 24 hours pencil lines removed with wet wiping removed
	(c) Potassuim Hydroxide Soln. 200gm/l (V/V)	ISO10545-13	Min Class-GHC	Class GLA	No visual changes observed after impression for 24 hours pencil lines removed with wet wiping removed
3.4	Resistance to satin	Stain put on tiles up to 24 hrs			
	Red past in light oil (Fe2O3)	Stain removed by hot water	Min Class - 3	Class -5	Complies
	Loding in alcohol 13g/l	Stain removed by hot weak cleaning agent	Min Class - 3	Class -4	
	Olive oil	Stain removed by hot water	Min Class - 3	Class -5	
3.5	Lead and cadium release in mg/dm²				
	Lead releases Test Solution Acietic acid solution 4% (V/V) (In 960 ml distilled water	Digestion time -24 hrs (20±2°) Detected by ED XRF	0.1 mg/dm²	0.00 mg/dm²	Complies
	Cadmium Release Test Solution Acietic acid solution 4% (V/V) (In 960 ml distilled water	Digestion time -24 hrs (20±2°) Detected by ED XRF	0.1 mg/dm²	0.00 mg/dm²	Complies
3.6	Small colour differences	ISO10545-9	Require 10 Cycle min	Δ E ‹ 0.75	No Difference

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