



COURTYARD™

COLLECTION



598x1198mm | 598x598mm

FULLBODY VITRIFIED TILES



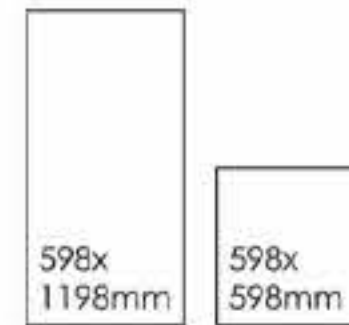
Wall **River Grey**
 Size **598x1198mm**
 Texture **Grid**

Floor **Black Beach**
 Size **598x598mm**
 Texture **Dune**

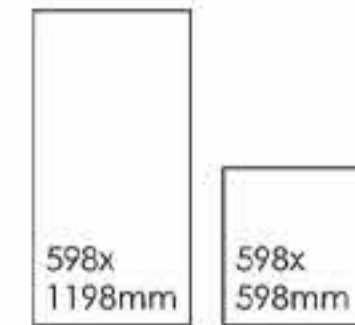
RIVER GREY

Fullbody Vitrified Tiles
Thickness 9mm

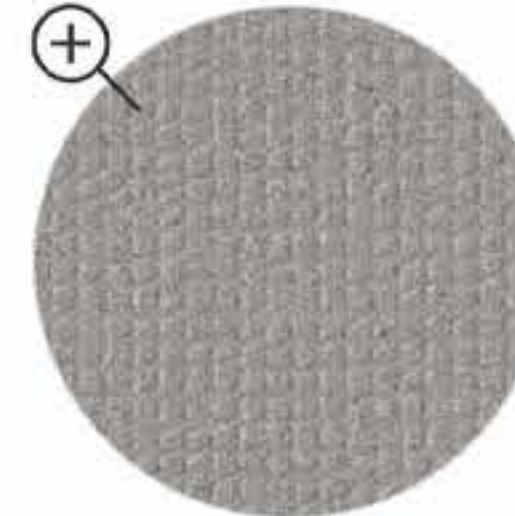
PROTECT Surface



POLISHED Surface

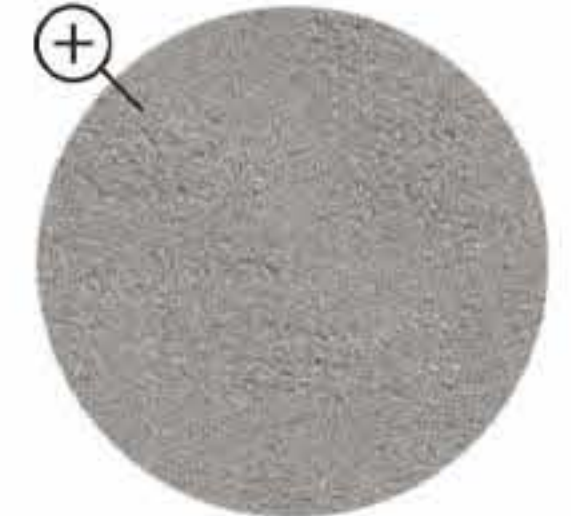


GRID Texture



Surface - Protect

DUNE Texture



Surface - Protect

COURTYARD

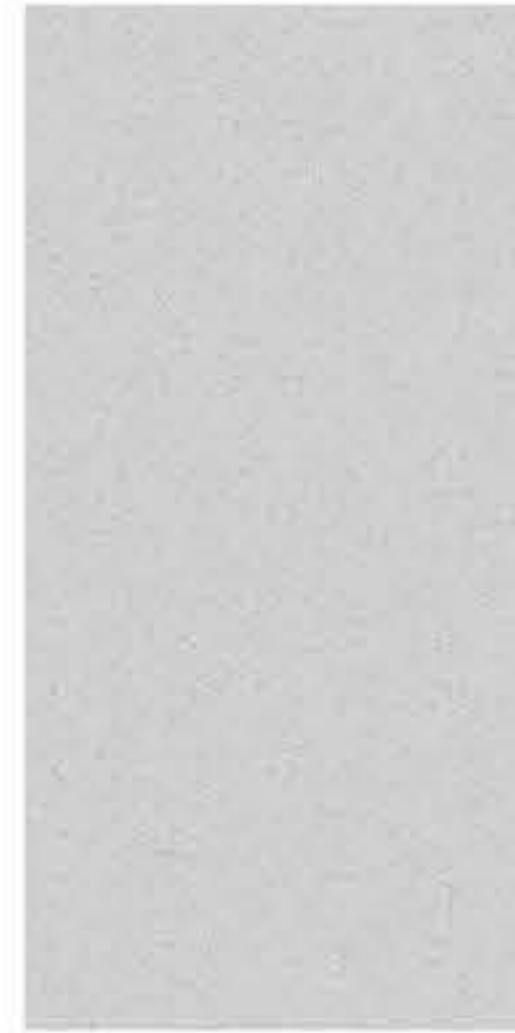


Floor **Silver Chalk**
 Size **598x598mm**
 Texture **Dune**

SILVER CHALK

Fullbody Vitrified Tiles
 Thickness 9mm

PROTECT Surface



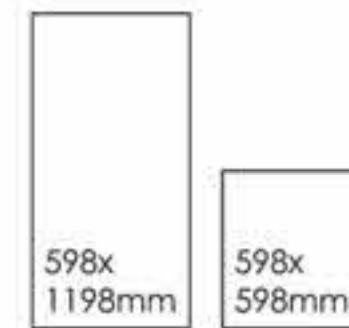
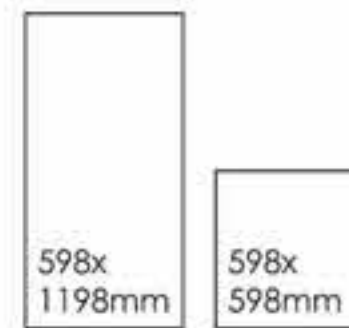
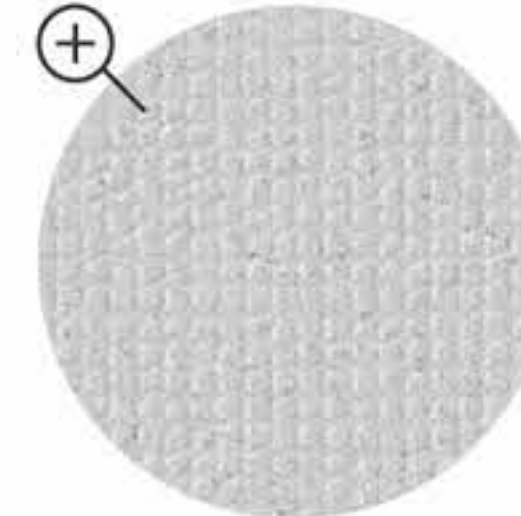
POLISHED Surface



GRID Texture



DUNE Texture



Surface - Protect

Surface - Protect

COURTYARD

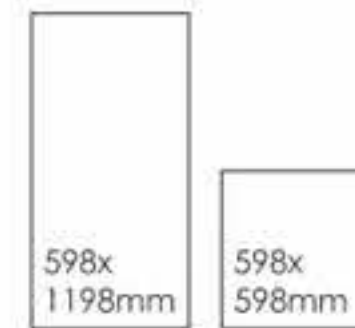


Outdoor Floor **Ash Brown**
 Size **598x598mm**
 Texture **Soil**

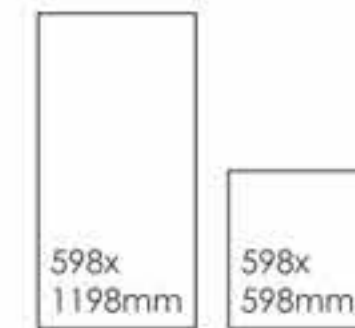
ASH BROWN

Fullbody Vitrified Tiles
 Thickness 9mm

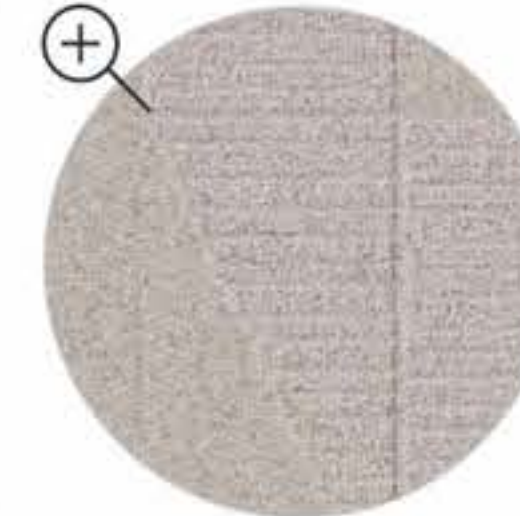
PROTECT Surface



POLISHED Surface

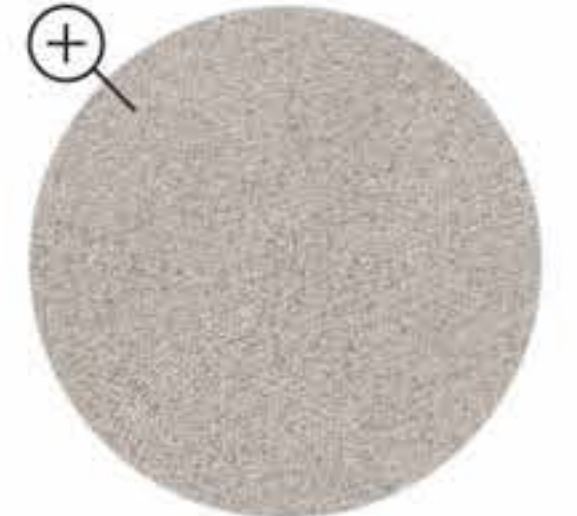


BRICK Texture



Surface - Protect

SOIL Texture



Surface - Protect

COURTYARD



Outdoor Floor **White Sand**
 Size **598x598mm**
 Texture **Soil**

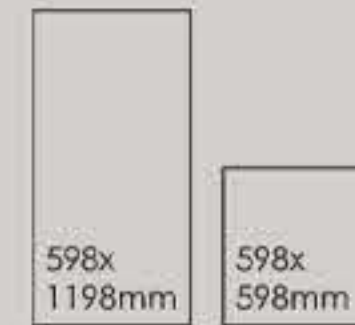
WHITE SAND

Fullbody Vitrified Tiles
 Thickness 9mm

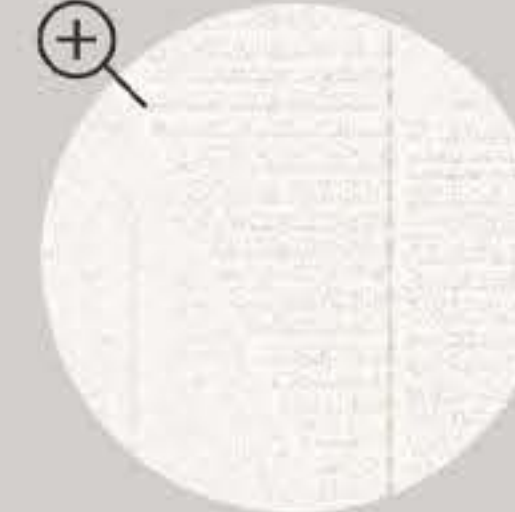
PROTECT Surface



POLISHED Surface

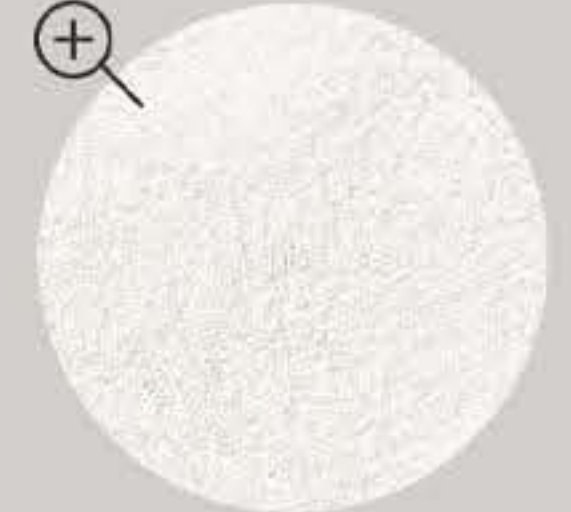


BRICK Texture



Surface - Protect

SOIL Texture



Surface - Protect

COURTYARD

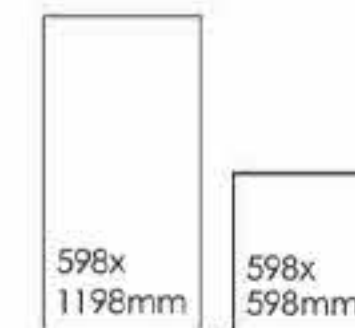


Floor **Black Beach**
 Size **598x598mm**
 Surface **Protect**

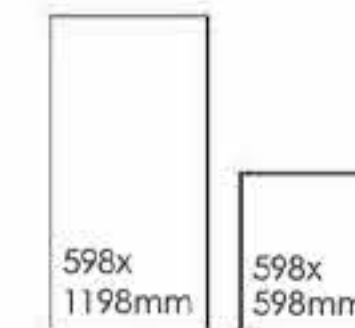
BLACK BEACH

Fullbody Vitrified Tiles
 Thickness 9mm

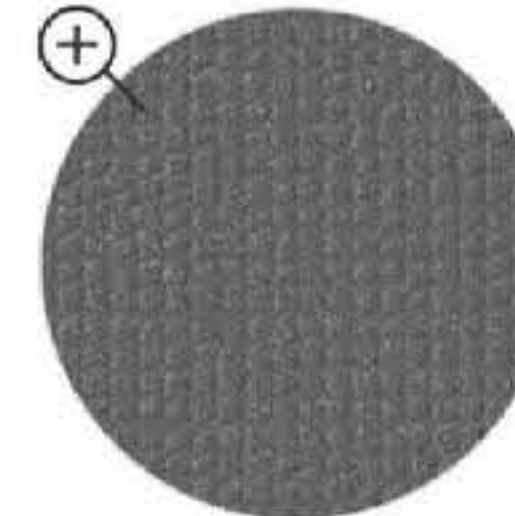
PROTECT Surface



POLISHED Surface

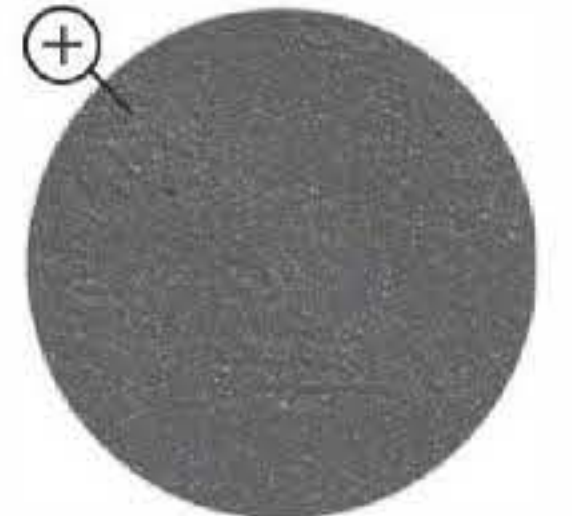


GRID Texture



Surface - Protect

DUNE Texture



Surface - Protect

COURTYARD

TECHNICAL DETAIL COURTYARD COLLECTION

CHARACTERISTIC	STANDARD AS PER ISO13006:2018/ EN14411 Gr.B1a	STANDARD AS PER IS 15622:2017 Gr.B1a	METHOD OF TESTING	MEAN VALUE
Regulatory Properties				
Deviation in Length and Width*	±0.30 % (±1.00 mm)	±0.10 %	ISO 10545-2/IS 13630-1	± 0.10 %
Deviation in Thickness*	±5.0 % (± 0.50 mm)	±5.0 %	ISO 10545-2/IS 13630-1	± 4.0 %
Straightness in Side*	±0.30 % (± 0.80 mm)	±0.10 %	ISO 10545-2/IS 13630-1	± 0.10 %
Rectangularity*	±0.30 % (±1.50 mm)	±0.10%	ISO 10545-2/IS 13630-1	± 0.10 %
Surface Flatness Central Curvature*	±0.40 % (± 1.80 mm)	±0.50 %	ISO 10545-2/IS 13630-1	± 0.20 %
Surface Flatness Edge Curvature*	±0.40 % (± 1.80 mm)	±0.50 %	ISO 10545-2/IS 13630-1	± 0.20 %
Surface Flatness Warpage*	±0.40 % (± 1.80 mm)	±0.50 %	ISO 10545-2/IS 13630-1	± 0.10 %
Surface Quality	>95% defects free	>95% defects free	ISO 10545-2/IS 13630-1	>95% defects free
Small Color Difference (For Plain Colour)	ΔE <1.00	N.A.	ISO 10545-16	ΔE <0.80
Glossiness (Polished)	As per Manufacturer	As per Manufacturer	Gloss Meter 60°	≥ 90
Glossiness (Matt)	As per Manufacturer	As per Manufacturer	Gloss Meter 60°	Gloss Value ≤9
Structural Properties				
Water Absorption	≤0.50 %	≤0.080 %	ISO 10545-3/IS 13630-2	≤0.080 %
Bulk Density	As per Manufacturer	Min 2.20 g/cc	ISO 10545-3/IS 13630-2	> 2.28 gm/cc
Massive Mechanical Properties				
Modulus of Rupture	Min. 35.0 N/mm ²	Min. 35.0 N/mm ²	ISO 10545-4/IS 13630-6	Min. 37.0 N/mm ²
Breaking Strength for Thickness ≥7.5 mm	Min 1300.0 N	Min 1300.0 N	ISO 10545-4/IS 13630-6	Min 1500.0 N
Surface Mechanical Properties				
MOH'S Hardness #	As per Manufacturer	Min. 5	BS EN 15771/IS 13630-13	Polished Min 4**/Matt Min 5
Deep Abrasion Resistance #	Max. 175 mm ³	Max. 140 mm ³	ISO 10545-6/IS 13630-12	Max 132 mm ³
Thermal Hygrometric Properties				
Moisture Expansion	Max 0.06% (0.6 mm/m)	Max 0.02 mm/m	ISO 10545-10/IS 13630-3	Max 0.02 mm/m
Thermal Expansion(COE) at 100°C	As per Manufacturer	Max. 6.0 x 10 ⁻⁶	ISO 10545-8/IS 13630-4	Max. 6.0 x 10 ⁻⁶
Thermal Shock Resistance	Min 10 Cycle	Min 10 Cycle	ISO 10545-9/IS 13630-5	Min 10 Cycle
Impact Resistance(COR) #	Min. 0.55	Min 0.55	ISO 10545-5/IS 13630-14	Min 0.55
Frost Resistance	As per Manufacturer	As per Manufacturer	ISO 10545-12/IS 13630-10	Frost Proof
Chemical Properties				
Resistance to Staining Unglazed	Min Class 3	Min Class 2	ISO 10545-14/IS 13630-8	Min. Class 4/Min. Class 2
Resistance to Household Chemicals & Swimming Pool Salts Unglazed	Min Class UB	As per Manufacturer	ISO 10545-13/IS 13630-7	Min Class UB/Min Class B
Resistance to Low Concentrate Acid and Alkalis Unglazed	As per Manufacturer	As per Manufacturer	ISO-10545-13/IS 13630-7	Min Class ULB***/ Min Class B***
Resistance to High Concentrate Acid and Alkalis Unglazed	As per Manufacturer	As per Manufacturer	ISO-10545-13/IS 13630-7	Min Class UHB***/ Min Class B***
Safety Properties				
Skid Resistance - (DCOF-WET PENDULUM)##	As per Manufacturer	As per Manufacturer	BS 7976-2	Glossy ≥P0, Matt ≥P2
Slip Resistance -Matt (DCOF- R Value)##	As per Manufacturer	As per Manufacturer	DIN 51130	≥R10

* Whichever is Lower
 ** With nano technology (Polished Vitrified Tiles) Depending on Application area (low or high intensity of traffic)
 *** Except Hydrofluoric Acid & it's compound
 # Tiles Intended for use on floor
 ## For Floor Tiles,as per customer requirement

PACKING DETAIL

PRODUCT	SIZE	ACTULE SIZE	THICKNESS	TILES / BOX	COVERAGE AREA / BOX
GARDEN & SOIL	59.8x119.8cm	598x1198mm	9mm	2 pcs.	1.44 sq. mtr. 15.50 sq. ft.
	59.8x59.8cm	598x598mm	9mm	4 pcs.	1.44 sq. mtr. 15.50 sq. ft.

TECHNICAL DETAIL TINY TILES COLLECTION

CHARACTERISTIC	STANDARD AS PER ISO13006:2018/ EN14411 Gr.B1a	STANDARD AS PER IS 15622:2017 Gr.B1a	METHOD OF TESTING	MEAN VALUE
Regulatory Properties				
*Un-Recrified (Which is Lower)				
Deviation in Length and Width	±0.60 % (±2.0 mm)	±0.40 %	ISO 10545-2/IS 13630-1	±0.40 %
Deviation in Thickness	±5.0 % (± 0.50 mm)	±5.0 %	ISO 10545-2/IS 13630-1	± 5.0 %
Straightness in Side	±0.50 % (± 1.5 mm)	±0.30 %	ISO 10545-2/IS 13630-1	±0.30 %
Rectangularity	±0.50 % (±2.0 mm)	±0.30 %	ISO 10545-2/IS 13630-1	±0.30 %
Surface Flatness Central Curvature	±0.50 % (± 2.0 mm)	±0.50 %	ISO 10545-2/IS 13630-1	± 0.40 %
Surface Flatness Edge Curvature	±0.50 % (± 2.0 mm)	±0.50 %	ISO 10545-2/IS 13630-1	± 0.40 %
Surface Flatness Warpage	±0.50 % (± 2.0 mm)	±0.50 %	ISO 10545-2/IS 13630-1	± 0.40 %
Surface Quality	>95% defects free	>95% defects free	ISO 10545-2/IS 13630-1	>95% defects free
Small Color Difference (For Plain Colour)	ΔE <1.0	N.A.	ISO 10545-16	ΔE <0.30
Structural Properties				
Water Absorption	Ev≤0.50 % Individual Max:0.6%	Ev≤0.08 % Individual Max:0.1%	ISO 10545-3/IS 13630-2	Ev≤0.08 % Individual Max:0.1%
Bulk Density	As per Manufacturer	Min 2.20 gm/cc	ISO 10545-3/IS 13630-2	>2.28 gm/cc
Massive Mechanical Properties				
Modulus of Rupture	Min 35.0 N/mm ² , Individual 32 N/mm ² Min	Average 35.0 N/mm ² , Individual 32 N/mm ² Min	ISO 10545-4/IS 13630-6	Min. 40.0 N/mm ²
Breaking Strength Thickness ≥7.5 mm	Min 1300.0 N	Min 1300.0 N	ISO 10545-4/IS 13630-6	Min 1500.0 N
Surface Mechanical Properties				
MOH'S Hardness #	As per Manufacturer	Min. 5	BS EN 15771/IS 13630-13	Min. 5
Surface Abrasion Resistance #	As per Manufacturer	Min. Class II	ISO 10545-7/IS 13630-11	Min Class II
Thermal Hygrometric Properties				
Moisture Expansion	Max 0.06% (0.6 mm/m)	Max. 0.02mm/m	ISO 10545-10/IS 13630-3	Nil
Thermal Expansion(COE) at 100 °C	As per Manufacturer	Max. 6x10 ⁻⁶ k	ISO 10545-8/IS 13630-4	Max. 6.0 x 10 ⁻⁶
Thermal Shock Resistance	Min 10 Cycle	Min 10 Cycle	ISO 10545-9/IS 13630-5	Min 10 Cycle
Impact Resistance(COR) #	As per Manufacturer	Min. 0.55	ISO 10545-5/IS 13630-14	Min 0.55
Frost Resistance	As per Manufacturer	As per Manufacturer	ISO 10545-12/IS 13630-10	Frost Proof
Crazing Resistance at 7.5 bar	As per Manufacturer	4 Cycle	ISO 10545-11/IS 13630-9	6 cycle
Chemical Properties				
Resistance to Staining Glazed	Min. Class 3	Min. Class 1	ISO-10545-14/IS 13630-7	Min. Class 4/ Min. Class 1
Resistance to Household Chemicals & Swimming Pool Salts Glazed	Min Class GB	Min Class AA	ISO-10545-13/IS 13630-8	Min Class GB/Min Class AA
Resistance to Low Concentrate Acid and Alkalis Glazed	As per Manufacturer	As per Manufacturer	ISO-10545-13/IS 13630-8	Min Class GLB***/ Min Class A***
Resistance to High Concentrate Acid and Alkalis Glazed	As per Manufacturer	As per Manufacturer	ISO-10545-13/IS 13630-8	Min Class GHB***/ Min Class B***
Safety Properties				
Skid Resistance -(DCOF-WET PENDULUM)##	As per Manufacturer	As per Manufacturer	BS 7976-2	Satin /Mat ≥P1
Lead and Cadmium release	As per Manufacturer	NA	ISO-10545-15	Does not yield Pb &Cd

*Whichever is lower.
 ***Except Hydrofluoric Acid and its compound
 # Tiles Intended for use on floor
 ## For Floor Tiles,as per customer requirement

PACKING DETAIL

PRODUCT	SIZE	ACTULE SIZE	THICKNESS	TILES / BOX	COVERAGE AREA / BOX
TINY TILES	19.8x19.8cm	198x198mm	8.5mm	18 pcs.	0.71 sq. mtr. 07.60 sq. ft.
	19.8x19.8cm (Corner)	198x198mm	8.5mm	8 pcs.	0.31 sq. mtr. 03.38 sq. ft.