

SANDO



Wall **Vertig Sando Cocoa Texture**



Wall **Vertig Sando Cocoa Texture**
Floor **Sando Cocoa Strongx (Matt)**

SANDO SERIES

VERTIG
SANDO COCOA TEXTURE



Random-18

VERTIG
SANDO BIANCO TEXTURE



Random-18

VERTIG
SANDO MUD TEXTURE



Random-18

VERTIG
SANDO VERDE TEXTURE



Random-18

VERTIG
SANDO SILVER TEXTURE



Random-18

VERTIG
SANDO GREY TEXTURE



Random-18

SANDO COCOA STRONGX (MATT)
SANDO COCOA PGVT (GLOSSY)



Random-18

SANDO BIANCO STRONGX (MATT)
SANDO BIANCO PGVT (GLOSSY)



Random-18

SANDO MUD STRONGX (MATT)
SANDO MUD PGVT (GLOSSY)



Random-18

SANDO VERDE STRONGX (MATT)
SANDO VERDE PGVT (GLOSSY)



Random-18

SANDO SILVER STRONGX (MATT)
SANDO SILVER PGVT (GLOSSY)



Random-18

SANDO GREY STRONGX (MATT)
SANDO GREY PGVT (GLOSSY)



Random-18

Scan for
360° Virtual



Scan for
360° Virtual



Scan for
360° Virtual



Scan for
360° Virtual



Scan for
360° Virtual



Scan for
360° Virtual



Size - 598x1198mm
Surface - Strongx (Matt), PGVT (Glossy)
Texture - Vertig
Thickness - 8.5mm

TECHNICAL DETAIL

SANDO COLLECTION

CHARACTERISTIC	STANDARD AS PER ISO13006:2018/ EN14411 Gr.BIa	STANDARD AS PER IS 15622:2017 Gr.BIa	METHOD OF TESTING	MEAN VALUE
Regulatory Properties				
Deviation in Length and Width	±0.30 % (±1.00 mm)	±0.10 %	± 0.10 %	ISO 10545-2/ IS 13630-1
Deviation in Thickness	±5.0 % (± 0.50 mm)	±5.0 %	± 5.0 %	ISO 10545-2/ IS 13630-1
Straightness in Side	±0.30 % (± 0.80 mm)	±0.10 %	± 0.10 %	ISO 10545-2/ IS 13630-1
Rectangularity	±0.30 % (±1.50 mm)	±0.10%	± 0.10 %	ISO 10545-2/ IS 13630-1
Surface Flatness Central Curvature	±0.40 % (± 1.80 mm)	±0.50 %	± 0.20 %	ISO 10545-2/ IS 13630-1
Surface Flatness Edge Curvature	±0.40 % (± 1.80 mm)	±0.50 %	± 0.20 %	ISO 10545-2/ IS 13630-1
Surface Flatness Warpage	±0.40 % (± 1.80 mm)	±0.50 %	± 0.10 %	ISO 10545-2/ IS 13630-1
Surface Quality	>95% defects free	>95% defects free	>95% defects free	ISO 10545-2/ IS 13630-1
Small Color Difference (For Plain Colour)	ΔE <1.00	N.A.	ΔE <0.80	ISO 10545-16
Glossiness (Polished)	As per Manufacturer	N.A.	> 90	Gloss Meter 60°
Structural Properties				
Water Absorption	≤0.50 %	≤0.080 %	≤0.080 %	ISO 10545-3/ IS 13630-2
Bulk Density	As per Manufacturer	Min 2.20 g/cc	> 2.28 gm/cc	ISO 10545-3/ IS 13630-2
Massive Mechanical Properties				
Modulus of Rupture	Min. 35.0 N/mm ²	Min. 35.0 N/mm ²	Min. 37.0 N/mm ²	ISO 10545-4/ IS 13630-6
Breaking Strength Thickness ≥7.5 mm	Min 1300.0 N	Min 1300.0 N	Min 1500.0 N	ISO 10545-4/ IS 13630-6
Breaking Strength Thickness <7.5 mm	Min 700.0 N	Min 700.0 N	Min 1000.0 N	ISO 10545-4/ IS 13630-6
Surface Mechanical Properties				
MOH'S Hardness #	As per Manufacturer	Min. 5	Polished 5 Min Posh, CRV, Matt 6 Min StrongX 8 Min	BS EN 15771/ IS 13630-13
Surface Abrasion Resistance #	As per Manufacturer	Min. Class II	Polished Class II Min Posh, CRV, Matt Class III Min StrongX Class IV Min	ISO 10545-7/IS 13630-11
Thermal Hygrometric Properties				
Moisture Expansion	Max 0.06% (0.6 mm/m)	Max 0.02 mm/m	Max 0.02 mm/m	ISO 10545-10/ IS 13630-3
Thermal Expansion (COE) at 100°C	As per Manufacturer	Max. 6.0 x 10 ⁻⁶	Max. 6.0 x 10 ⁻⁶	ISO 10545-8/ IS 13630-4
Thermal Shock Resistance	Min 10 Cycle	Min 10 Cycle	Min 10 Cycle	ISO 10545-9/ IS 13630-5
Impact Resistance (COR) #	Min. 0.55	Min 0.55	Min 0.55	ISO 10545-5/ IS 13630-14
Frost Resistance	As per Manufacturer	As per Manufacturer	Frost Proof	ISO 10545-12/ IS 13630-10
Crazing Resistance at 7.5 bar	4 Cycle	4 Cycle	6 Cycle	ISO 10545-11/ IS 13630-9
Chemical Properties				
Resistance to Staining Glazed	Min. Class 3	Min Class 1	Min. Class 4/Min. Class 1	ISO 10545-14/ IS 13630-8
Resistance to Household Chemicals & Swimming Pool Salts Glazed	Min Class GB	Min Class AA	Min Class GB/ Min Class AA	ISO 10545-13/ IS 13630-8
Resistance to Low Concentrate Acid and Alkalis Glazed	As per Manufacturer	As per Manufacturer	Min Class GLB***/ Min Class A***	ISO-10545-13/ IS 13630-8
Resistance to High Concentrate Acid and Alkalis Glazed	As per Manufacturer	As per Manufacturer	Min Class GHB***/ Min Class A***	ISO-10545-13/ IS 13630-7
Safety Properties				
Skid Resistance - (DCOF-Wet pendulum) ##	As per Manufacturer	As per Manufacturer	Polished : < 0.2 Matt : > 0.3 StrongX : > 0.4	ASTM E-303
Slip Resistance - (Ramp test Value)	As per Manufacturer	As per Manufacturer	Posh, CRV, Matt : R9 - R10 StrongX : R10 R11 Surface : R11	DIN 51130
Lead and Cadmium release	As per Manufacturer	N.A.	Does not yield Pb & Cd	ISO-10545-15

* Whichever is Lower
 *** 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	
SANDO COLLECTION	60x120cm 20x20cm	598x1198mm 198x198mm	8.5mm 8.5mm	3 pcs. 18 pcs.	2.16 sq. mtr. 0.706 sq. mtr.	23.25 sq. ft. 7.60 sq. ft.