

POLOSTONE

ARCHITECTURAL STONEWARE

TECHNICAL SPECIFICATION

CHARACTERISTIC	STANDARD AS PER ISO13006:2018 / EN14411 Gr. Bla	METHOD OF TESTING	SILK MATT	NATURAL MATT	TOUCH MATT	LUX POLISHED
Regulatory Properties						
Deviation in Length and Width*	±0.30 % (±1.00 mm)	ISO 10545-2	±1.0 mm (±0.20 %)	±1.0 mm (±0.20 %)	±1.0 mm (±0.20 %)	±1.0 mm (±0.20 %)
Deviation in Thickness*	±5.0 % (±0.50 mm)	ISO 10545-2	±0.5 mm (±5.0 %)	±0.5 mm (±5.0 %)	±0.5 mm (±5.0 %)	±0.5 mm (±5.0 %)
Straightness in Side*	±0.30 % (±0.80 mm)	ISO 10545-2	±0.8 mm(±0.20 %)	±0.8 mm(±0.20 %)	±0.8 mm(±0.20 %)	±0.8 mm(±0.20 %)
Rectangularity*	±0.30 % (±1.50 mm)	ISO 10545-2	±1.2 mm(±0.20 %)	±1.2 mm(±0.20 %)	±1.2 mm(±0.20 %)	±1.2 mm(±0.20 %)
Surface Flatness Central Curvature*	±0.40 % (±1.80 mm)	ISO 10545-2	±1.8 mm(±0.20 %)	±1.8 mm(±0.20 %)	±1.8 mm(±0.20 %)	±1.8 mm(±0.20 %)
Surface Flatness Edge Curvature*	±0.40 % (±1.80 mm)	ISO 10545-2	±1.8 mm(±0.20 %)	±1.8 mm(±0.20 %)	±1.8 mm(±0.20 %)	±1.8 mm(±0.20 %)
Surface Flatness Warpage*	±0.40 % (±1.80 mm)	ISO 10545-2	±1.8 mm(±0.20 %)	±1.8 mm(±0.20 %)	±1.8 mm(±0.20 %)	±1.8 mm(±0.20 %)
Surface Quality	>95% defects free	ISO 10545-2	>95% defects free	>95% defects free	>95% defects free	>95% defects free
Small Color Difference (For Plain Colour)	ΔE <1.00	ISO 10545-16	ΔE <0.80	ΔE <0.80	ΔE <0.80	ΔE <0.80
Structural Properties						
Water Absorption	≤0.50 %	ISO 10545-3	≤0.080 %	≤0.080 %	≤0.080 %	≤0.080 %
Bulk Density	As per Manufacturer	ISO 10545-3	> 2.28 gm/cc	> 2.28 gm/cc	> 2.28 gm/cc	> 2.28 gm/cc
Massive Mechanical Properties						
Modulus of Rupture >7.5 mm	Min. 35.0 N/mm ²	ISO 10545-4	Min. 45.0 N/mm ²	Min. 45.0 N/mm ²	Min. 45.0 N/mm ²	Min. 45.0 N/mm ²
Breaking Strength Thickness >7.5 mm (12 mm)	Min 1300.0 N	ISO 10545-4	Min 2500.0 N	Min 2500.0 N	Min 2500.0 N	Min 2500.0 N
Breaking Strength Thickness >7.5 mm (20 mm)	Min 1300.0 N	ISO 10545-4	Min 7500.0 N	Min 7500.0 N	Min 7500.0 N	Min 7500.0 N
Surface Mechanical Properties						
MOH'S Hardness	As per Manufacturer	BS EN 15771	Min 6	Min 6	Min 6	Min 3
Surface Abrasion Resistance	As per Manufacturer	ISO 10545-7	PEI III	PEI III	PEI III	PEI II
Deep Abrasion	≥175 mm	ISO 10545-6	≥132 mm	≥132 mm	≥132 mm	-
Thermal Hygrometric Properties						
Moisture Expansion	Max 0.06% (0.6 mm/m)	ISO 10545-10	Max 0.02 mm/m	Max 0.02 mm/m	Max 0.02 mm/m	Max 0.02 mm/m
Thermal Expansion(COE) at 100°C	As per Manufacturer	ISO 10545-8	Max. 6.0 x 10 ⁻⁶	Max. 6.0 x 10 ⁻⁶	Max. 6.0 x 10 ⁻⁶	Max. 6.0 x 10 ⁻⁶
Thermal Shock Resistance	Min 10 Cycle	ISO 10545-9	Min 10 Cycle	Min 10 Cycle	Min 10 Cycle	Min 10 Cycle
Impact Resistance(COR) #	Min. 0.55	ISO 10545-5	Min 0.55	Min 0.55	Min 0.55	Min 0.55
Frost Resistance	As per Manufacturer	ISO 10545-12	Frost Proof	Frost Proof	Frost Proof	Frost Proof
Crazing Resistance at 7.5 bar	4 Cycle	ISO 10545-11	4 Cycle	4 Cycle	4 Cycle	4 Cycle
Chemical Properties						
Resistance to Staining	Min. Class 3	ISO 10545-14	Min. Class 4	Min. Class 4	Min. Class 4	Min. Class 4
Resistance to Household Chemicals & Swimming Pool	Min Class GB	ISO 10545-13	Min Class UB	Min Class UB	Min Class GB	Min Class GB
Resistance to Low Concentrate Acid and Alkalis	As per Manufacturer	ISO-10545-13	Min Class ULB***	Min Class ULB***	Min Class GLB***	Min Class GLB***
Resistance to High Concentrate Acid and Alkalis	As per Manufacturer	ISO-10545-13	Min Class UHB***	Min Class UHB***	Min Class GHB***	Min Class GHB***
Safety Properties Skid Resistance - (DCOF-WET PENDULUM)	As per Manufacturer	BS 7976-2	P1	P1	P1	-
Slip Resistance - (DCOF- R Value)	As per Manufacturer	DIN 51130	R9	R9	R9	-
Lead and Cadmium release (lead Concentration)	As per Manufacturer	ISO-10545-15	<0.01 mg/dm ²	Does not yield	<0.01 mg/dm ²	<0.01 mg/dm ²
Lead and Cadmium release (Cadmium Concentration)	As per Manufacturer	ISO-10545-15	<0.001 mg/dm ²	Does not yield	<0.001 mg/dm ²	<0.001 mg/dm ²

* Whichever is less is applicable for Rectified Size N>=15 CM

*** Except Hydrofluoric Acid & it's compound

Note: Length and width, orthogonality and straightness are not applicable for the NOT-rectified material.