

Technical Specification

HIGH PERFORMANCE

CHARACTERISTIC	STANDARD AS PER ISO13006:2018/EN14411 Gr.BIIa	TEST METHOD	STANDARD AS PER IS15622:2017 Gr.BIIa	TEST METHOD	MEAN VALUE OF ELYSIA
Regulatory Properties					
Deviation in length and width	± 0.30 % (± 1.00mm)	ISO 10545-2	± 0.10 %	IS 13630-1	± 0.10 %
Deviation in thickness	± 5.00 % (± 0.50mm)	ISO 10545-2	± 5.00 %	IS 13630-1	± 4.00 %
Straightness in side	± 0.30 % (± 0.80mm)	ISO 10545-2	± 0.10 %	IS 13630-1	± 0.10 %
Rectangularity	± 0.30 % (± 1.50mm)	ISO 10545-2	± 0.10%	IS 13630-1	± 0.10 %
Surface flatness Central Curvature	± 0.40 % (± 1.80mm)	ISO 10545-2	± 0.50 %	IS 13630-1	± 0.10 %
Surface flatness Edge Curvature	± 0.40 % (± 1.80mm)	ISO 10545-2	± 0.50 %	IS 13630-1	± 0.10 %
Surface flatness Warpage	± 0.40 % (± 1.80mm)	ISO 10545-2	± 0.50 %	IS 13630-1	± 0.10 %
Surface Quality	> 95% defects free	ISO 10545-2	> 95% defects free	IS 13630-1	> 95% defects free
Small Color Difference	ΔE < 0.75	ISO 10545-16	N.A.	N.A	ΔE < 0.30
Glossiness (With Nano Polished)	As per Manufacturer	Gloss Meter 60°	As per Manufacturer	Gloss Meter 60°	> 90**
Glossiness (Without Polished)	As per Manufacturer	Gloss Meter 60°	As per Manufacturer	Gloss Meter 60°	7° < GLOSS < 14**
Glossiness (Satin)	As per Manufacturer	Gloss Meter 60°	As per Manufacturer	Gloss Meter 60°	15° < GLOSS < 25**
Structural Properties					
Water absorption	3% < E _v ≤ 6 %	ISO 10545-3	3% < E ≤ 6 %	IS 13630-2	3% < E ≤ 6 %
Massive Mechanical Properties					
Modulus of rupture	Min. 22.0 N/mm ²	ISO 10545-4	Min. 22.0 N/mm ²	IS 13630-6	Min. 25.0 N/mm ²
Breaking strength thickness <7.5	Min. 600.0 N	ISO 10545-4	Min. 600.0 N	IS 13630-6	Min. 800.0 N
Breaking strength thickness ≥7.5	Min. 1000.0 N	ISO 10545-4	Min. 1000.0 N	IS 13630-6	Min. 1200.0 N
Surface Mechanical Properties					
MOH'S hardness	As per Manufacturer	BS EN 15771:2010	Min. 4	IS 13630-13	Min 4**
Surface abrasion resistance-Glossy #	As per Manufacturer	ISO 10545-7	Min. Class II	IS 13630-11	Min. Class 2 / Min. Class II
Surface abrasion resistance-Matt #	As per Manufacturer	ISO 10545-7	Min. Class II	IS 13630-11	Min. Class 3 / Min. Class II
Thermal Hygrometric Properties					
Moisture expansion	Max. 0.06%(0.6mm/m)	ISO 10545-10	Max. 0.03mm/m	IS 13630-3	NIL
Thermal expansion(COE) at 100°C	As per Manufacturer	ISO 10545-8	Max. 9.0 x 10 ⁻⁵	IS 13630-4	Max. 8.5 x 10 ⁻⁵
Thermal shock resistance	Min. 10 Cycle	ISO 10545-9	Min. 10 Cycle	IS 13630-5	Min. 10 Cycle
Crazing Resistance at (ISO 500±20 kPa-159°C±1°C) / (IS 750±20 kPa-168°C±1°C)	As per Manufacturer	ISO 10545-11	Min. 4 Cycle	IS 13630-9	Min. 6 Cycle
Impact resistance(COR)	Min 0.55	ISO 10545-5	Min. 0.55	IS 13630-14	Min. 0.55
Frost resistance	As per Manufacturer	ISO 10545-12	As per Manufacturer	IS 13630-10	Frost Proof
Chemical Properties					
Resistance to Staining Glazed	Min. Class 3	ISO 10545-14	Min. Class I	IS 13630-8	Min. Class 4/Min. Class I
Resistance to Household Chemicals &Swimming Pool Salts Glazed	Min. Class GB	ISO 10545-13	Min. Class AA	IS 13630-8	Min. Class GA/Min. Class AA
Resistance to Low Concentrate Acidand Alkalis Glazed	As per Manufacturer	ISO 10545-13	As per Manufacturer	IS 13630-8	Min. Class GLB*/Min. Class A***
Resistance to High Concentrate Acidand Alkalis Glazed	As per Manufacturer	ISO 10545-13	As per Manufacturer	IS 13630-8	Min. Class GHB*/Min. Class A***
Safety Properties					
Skid resistance(DCOF-DRY) ##	As per Manufacturer	ANSI/NFSI B101.3-2012	As per Manufacturer	ISO 10545-17	> 0.30
Slip resistance(DCOF)(R value)##	As per Manufacturer	DIN 51130	As per Manufacturer	ISO 10545-17	N.A.
Determination of Lead & Cadmium Release for Glazed Tiles	As per Manufacturer	ISO 10545-15	N.A.	ISO 10545-15	Dose not yield Pb & Cd
Fire Resistance	As per Manufacturer	N.A.	As per Manufacturer	N.A.	Fire Proof

* Glossiness 90% with nano technology

** Without nano technology (Polished Vitrified tiles)

Depending on Application Area (Low or high intensity of traffic)

*** Except Hydrofluoric Acid & it's compound

Glaze tiles Intended for use on floor

As per customer requirement

