

Technical Specification

CHARACTERISTIC	STANDARD AS PER ISO13006:2018/ EN14411 Gr.Bla	STANDARD AS PER IS15622:2017 Gr.Bla	MEAN VALUE OF ELYSIA	TEST METHOD
Regulatory Properties				
Deviation in length and width	± 0.30 % (±1.00mm)	± 0.10 %	± 0.10 %	ISO 10545-2 & IS 13630-1
Deviation in thickness	± 5.00 % (±0.50mm)	± 5.00 %	± 4.00 %	ISO 10545-2 & IS 13630-1
Straightness in side	± 0.30 % (±0.80mm)	± 0.10 %	± 0.10 %	ISO 10545-2 & IS 13630-1
Rectangularity	± 0.30 % (±1.50mm)	± 0.10%	± 0.10 %	ISO 10545-2 & IS 13630-1
Surface flatness central curvature	± 0.40 % (±1.80mm)	± 0.50 %	± 0.20 %	ISO 10545-2 & IS 13630-1
Surface flatness edge curvature	± 0.40 % (±1.80mm)	± 0.50 %	± 0.20 %	ISO 10545-2 & IS 13630-1
Surface flatness warpage	± 0.40 % (±1.80mm)	± 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	ΔE < 0.75	N.A.	ΔE < 0.30	ISO 10545-16
Glossiness (with nano polished)	as per mfg.	as per mfg.	> 90°	Glossmeter 60°
Glossiness (without polished)	as per mfg.	as per mfg.	3° < GLOSS < 7°	Glossmeter 60°
Glossiness (satin)	as per mfg.	as per mfg.	7° < GLOSS < 18°	Glossmeter 60°
Structural Properties				
Water absorption	≤ 0.50 %	≤ 0.080 %	≤ 0.060 %	ISO 10545-3 & IS 13630-2
Bulk density	as per mfg.	Min. 2.20 g/cc	> 2.28 gm/cc	ISO 10545-3 & IS 13630-2
Massive Mechanical Properties				
Modulus of rupture	Min. 35 N/mm ²	Min. 35 N/mm ²	Min. 40 N/mm ²	ISO 10545-4 & IS 13630-6
Breaking strength thickness <7.5	Min. 700.0 N	Min. 700.0 N	Min. 1000.0 N	ISO 10545-4 & IS 13630-6
Breaking strength thickness ≥7.5	Min. 1300.0 N	Min. 1100.0 N	Min. 1800.0 N	ISO 10545-4 & IS 13630-6
Surface Mechanical Properties				
MOH'S hardness #	as per mfg.	Min. 5	PGVT - Min. 4 / GVT - Min. 6	EN 101 & IS 13630-13
Surface abrasion resistance-Glossy #	as per mfg.	Min. Class II	Min. Class 2 / Min. Class II	ISO 10545-7 & IS 13630-11
Surface abrasion resistance-Matt #	as per mfg.	Min. Class II	Min. Class 4 / Min. Class IV	ISO 10545-7 & IS 13630-11
Thermal Hydrometric Properties				
Moisture expansion	Max. 0.06% (0.6mm/m)	Max. 0.02mm/m	Max. 0.02mm/m	ISO 10545-10 & IS 13630-3
Thermal expansion(COE) at 100°C	as per mfg.	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
Crazing resistance at 7.5 Bar	as per mfg.	Min. 4 Cycle	Min. 6 Cycle	ISO 10545-11 & IS 13630-9
Impact resistance(COR)	Min. 0.55	Min. 0.55	Min. 0.55	ISO 10545-5 & IS 13630-14
Frost resistance	as per mfg.	as per mfg.	Frost Proof	ISO 10545-12 & IS 13630-10
Chemical Properties				
Resistance to staining glazed	Min. Class 3	Min. Class I	Min. Class 4/Min. Class I	ISO 10545-14 & IS 13630-8
Resistance to household chemicals & swimming pool salts glazed	Min. Class GB	Min. Class AA	Min. Class GA/Min. Class AA	ISO 10545-13 & IS 13630-8
Resistance to low concentrate acid and alkalis glazed	as per mfg.	as per mfg.	Min. Class GLB***/Min. Class A***	ISO 10545-13 & IS 13630-8
Resistance to high concentrate acid and alkalis glazed	as per mfg.	as per mfg.	Min. Class GHB***/Min. Class A***	ISO 10545-13 & IS 13630-8
Safety Properties				
Skid resistance(DCOF-DRY)	as per mfg.	as per mfg.	Polished <0.30 Satin/Matt >0.40	ANSI/NFSI B101.3-2012
Slip resistance(DCOF) (R value)##	as per mfg.	as per mfg.	R9 to R13	DIN 51130
Determination of lead & cadmium release for glazed tiles	as per mfg.	N.A.	Dose not yield Pb & Cd	ISO 10545-15
Fire resistance	as per mfg.	as per mfg.	Fire Proof	N.A.

* For Matt & Satin Finished

** With 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



elysia