

S.No	Technical Characteristics	* IS 15622:2017, *EN 14411:2016 & ISO 13006:2018 Group Bla (Annex G) Standard's Requirement	Tile's Specifications	Test method
1.	Deviation in length & width	+0.1 % ± 0.6 %/ ± 0.3 %	± 0.10 %	IS 13630-1 EN ISO 10545-2
2.	Deviation in thickness	± 5.0 %	± 4.00 %	IS 13630-1 EN ISO 10545-2
3.	Deviation in Straightness of sides	± 0.1 % ± 0.5 %/± 0.3 %	± 0.10 %	IS 13630-1 EN ISO 10545-2
4.	Deviation in Rectangularity	± 0.1 % ± 0.5 %/± 0.3 %	± 0.10 %	IS 13630-1 EN ISO 10545-2
5.	Deviation in Surface Flatness	± 0.5 % ± 0.5 %/± 0.4 %	± 0.15 %	IS 13630-1 EN ISO 10545-2
6.	Surface quality	95% of the tiles shall be free from visible defects	95% of the tiles shall be free from visible defects	IS 13630-1 EN ISO 10545-2
7.	Modulus of rupture	Avg. 35 N/mm2, individual Min 32 N/mm2	≥ 40 N/mm²	IS 13630-6 / EN ISO 10545-4
8.	Breaking strength	Minimum 1300 N	≥ 2000 N	IS 13630-6 / EN ISO 10545-4
9.	Bulk Density	Minimum 2.20 g/cc	≥ 2.25 g/cc	IS 13630-2
10.	Glossiness	Manufacture to state the class	Min 5 for Rustic/Matt/Satin Finish Min 90 for Polish Finish	Glossimeter 60 degrees
11.	Water Absorption	<0.08 %, Individual Max 0.1% ≤ 0.5 %, Individual Max. 0.6 %	<0.08 %, Individual Max 0.1% ≤ 0.3 % (Only for 13x80 cm)	IS 13630-2 / EN ISO 10545-3
12.	Resistance to surface abrasion of Glazed tiles	Minimum Class II Report abrasion class and cycles passed	PEI-Class III to Class IV	IS 13630-11 EN ISO 10545-7
13.	Thermal expansion from ambient temperature to 100 °C	Test method available	6x10 ⁻⁴ °K ⁻¹ Maximum	IS 13630-4 EN ISO 10545-8
14.	Thermal shock resistance	10 cycles Minimum Test method available	10 cycles Minimum	IS 13630-5 EN ISO 10545-9
15.	Moisture expansion	Maximum 0.02 Millimeter/Metre Test method available	Nil	IS 13630-3 EN ISO 10545-10
16.	Crazing resistance (Glazed Tiles)	Passes 4 cycles at 7.5 kg/cm2 Required	Passes 4 cycles at 7.5 kg/cm²	IS 13630-9 EN ISO 10545-11
17.	Frost resistance	Required	100 cycles Minimum	IS 13630-10 EN ISO 10545-12
18.	Resistance to Household Chemicals & Swimming Pool Salts #	Minimum Class AA Minimum GB	Minimum Class AA Minimum GB	IS 13630-8 EN ISO 10545-13
19.	Resistance to low & high concentration of acids & alkalis #	Manufacturer to state classification	Minimum Class AA Minimum GLB,GHB	IS 13630-8 EN ISO 10545-13
20.	Stain resistance**	Minimum Class 1 Minimum Class 3	Minimum Class 1 Minimum Class 3	IS 13630-8 EN ISO 10545-14
21.	Slipperiness	Test method available	≥ R-9 to R-10 for Rustic/Matt/Satin Finish ≥ R-9 for Polish Finish	DIN 51130:2014
22.	Co-efficient of friction	Manufacture to state the class	≥ 0.32 for Rustic/Matt/Satin Finish > 0.20 for Polish Finish	ISO 10545-17
23.	Scratch hardness of surface(Moh's scale)	Minimum 5 Test method available	Min 6 for Rustic/Matt/Satin Finish Min 5 for Polish/Marbletech Finish	IS 13630-13 EN 101
24.	Impact Resistance	Minimum 0.55 Test method available	Min 0.55 & No identification of cracking	IS 13630-14 EN ISO 10545-5

** Vitrified tiles have resistance to most of the stains / chemicals but, it is recommended to take due care while laying and for day-to-day maintenance.

- VISUAL 1 ☒
- VISUAL 2 ☐
