

POLISH PORCELAIN

Technical Specification

CHARACTERISTICS	Requirement as per ISO 13006:2018 Gr Blb 0.5% ≤ E ≤ 3.0%	Requirement as per IS 15622:2017 Gr Blb 0.08% ≤ E ≤ 3.0	Value	Test Method
(A) DIMENSION & SURFACE QUALITY				
Deviation In Length & Width	± 0.3%, ± 1.0 mm	± 0.1%	± 0.1%	ISO 10545 Part-2 IS 13630 Part-1
Deviation In Thickness	± 5.0%, ± 0.5 mm	± 5.0%	± 3.0%	ISO 10545 Part-2 IS 13630 Part-1
Straightness of Edge	± 0.3%, ± 0.8 mm	± 0.1%	± 0.1%	ISO 10545 Part-2 IS 13630 Part-1
Rectangularity	± 0.3%, ± 1.5 mm	± 0.1%	± 0.1%	ISO 10545 Part-2 IS 13630 Part-1
Surface Flatness	± 0.4%, ± 1.8 mm	± 0.5%	± 0.2%	ISO 10545 Part-2 IS 13630 Part-1
Surface Quality	Min. 95% of Tiles shall be free from visible defects that would impair the appearance of a major area of the tiles	Min. 95% of Tiles shall be free from visible defects that would impair the appearance of a major area of the tiles	Min. 95% of Tiles shall be free from visible defects that would impair the appearance of a major area of the tiles	ISO 10545 Part-2 IS 13630 Part-1
Glossiness*	-	-	> 85	Glossmeter
(B) PHYSICAL & THERMAL PROPERTIES				
Water Absorption % By Wt.	0.5 ≤ E ≤ 3.0. Ind. 3.3 Max.	0.08 ≤ E ≤ 3.0. Ind. 3.3 Max.	2.0-3.0%	ISO 10545 Part-3 IS 13630 Part-2
Flexural Strength (MOR) In N/mm ²	Avr. 30. Ind. Min. 27	Avr. 30. Ind. Min. 27	≥ 32 N/mm ²	ISO 10545 Part-4 IS 13630 Part-6
Breaking Strength in N	1100 N Min.	1100 N Min.	> 1500 N	ISO 10545 Part-4 IS 13630 Part-6
Bulk Density (gm/cc)	2.0 Min.	2.0 Min.	≥ 2.1	ISO 10545 Part-3 IS 13630 Part-2
Resistance to Surface Abrasion	Manufacturer to State Class	PEI II Min.	Min. PEIII	ISO 10545 Part-7 IS 13630 Part-11
Co-efficient of Linear Thermal Expansion from ambient temp to 100°C (K-1)	9x10 ⁻⁶ Max.	7x10 ⁻⁶ Max.	≤ 6x10 ⁻⁶	ISO 10545 Part-8 IS 13630 Part-4
Thermal Shock Resistance	10 Cycles Min.	10 Cycles Min.	No Damage after 10 cycles	ISO 10545 Part-9 IS 13630 Part-5
Moisture Expansion in mm/M	Test Method Available	0.02 Max.	Nil	ISO 10545 Part-10 IS 13630 Part-3
Crazing Resistance	Required	4 Cycles at 7.5 bar Min.	Resistance	ISO 10545 Part-11 IS 13630 Part-9
Frost Resistance	Resistance	Resistance	Resistance	ISO 10545 Part-12 IS 13630 Part-10
Moh'S Scratch Hardness	Min. 5	Min. 5	≤ 5	EN 101 IS 13630 Part-13
(C) CHEMICAL PROPERTIES				
Resistance To Household Chemicals	No Damage	Min. Class AA	Class AA	ISO 10545 Part-13 IS 13630 Part-8
Resistance To Acids & Alkalis (Except HF Acid)	No Damage	Min. Class AA	Class AA	ISO 10545 Part-13 IS 13630 Part-8
Stain Resistance	Min. Class 3	Min. Class 1	Resistance	ISO 10545 Part-14 IS 13630 Part-8

* PPT Finish

Packing Specification

Size (mm)	Thickness (mm)	Weight (Kg.)	No. of Tiles / Box	Area Sq. mtr./ Box
600x600mm	9.5 mm	29.0 kg.	04 pcs.	1.44m ²

Technical Specification

CHARACTERISTICS	Requirement as per ISO 13006:2018 Gr B11a 3.0 ≤ E ≤ 6.0%	Requirement as per IS 15622:2017 Gr B11a 3.0 ≤ E ≤ 6.0%	Value	Test Method
(A) DIMENSION & SURFACE QUALITY				
Deviation In Length & Width	± 0.3%, ± 1.0 mm	± 0.1%	± 0.1%	ISO 10545 Part-2 IS 13630 Part-1
Deviation In Thickness	± 5.0%, ± 0.5 mm	± 5.0%	± 3.0%	ISO 10545 Part-2 IS 13630 Part-1
Straightness of Edge	± 0.3%, ± 0.8 mm	± 0.1%	± 0.1%	ISO 10545 Part-2 IS 13630 Part-1
Rectangularity	± 0.3%, ± 1.5 mm	± 0.1%	± 0.1%	ISO 10545 Part-2 IS 13630 Part-1
Surface Flatness	± 0.4%, ± 1.8 mm	± 0.5%	± 0.2%	ISO 10545 Part-2 IS 13630 Part-1
Surface Quality	Min. 95% of Tiles shall be free from visible defects that would impair the appearance of a major area of the tiles	Min. 95% of Tiles shall be free from visible defects that would impair the appearance of a major area of the tiles	Min. 95% of Tiles shall be free from visible defects that would impair the appearance of a major area of the tiles	ISO 10545 Part-2 IS 13630 Part-1
(B) PHYSICAL & THERMAL PROPERTIES				
Water Absorption % By Wt.	3.0 ≤ Eb ≤ 6.0, Ind. 6.5 Max.	3.0 ≤ Eb ≤ 6.0 Ind. 6.2 Max.	4.0-5.5%	ISO 10545 Part-3 IS 13630 Part-2
Flexural Strength (MOR) In N/mm ²	Avr. 22, Ind. Min. 20	Avr.22, Ind. Min. 20	≥ 27 N/mm ²	ISO 10545 Part-4 IS 13630 Part-6
Breaking Strength in N	1000 N Min.	1000 N Min.	> 1200 N	ISO 10545 Part-4 IS 13630 Part-6
Resistance to Surface Abrasion	Manufacturer to State Class	PEI II Min.	PEI III (Glossy) PEI IV & IV ⁺ (Matt)	ISO 10545 Part-7 IS 13630 Part-11
Co-efficient of Liner Thermal Expansion from ambient temp to 100°C (K ⁻¹)	9x10 ⁻⁶ Max.	9x10 ⁻⁶ Max.	≤ 9X10 ⁻⁶	ISO 10545 Part-8 IS 13630 Part-4
Thermal Shock Resistance	10 Cycles Min.	10 Cycles Min.	No Damage after 10 Cycles	ISO 10545 Part-9 IS 13630 Part-5
Moisture Expansion in mm/M	Test Method Available	0.03 Max.	Nil	ISO 10545 Part-10 IS 13630 Part-3
Crazing Resistance	Required	4 Cycles at 7.5 bar Min.	Resistance	ISO 10545 Part-11 IS 13630 Part-9
Frost Resistance	Resistance	Resistance	Resistance	ISO 10545 Part-12 IS 13630 Part-10
Moh'S Scratch Hardness	Min. 5	Min. 4	Min. 5	EN 101 IS 13630 Part-13
(C) CHEMICAL PROPERTIES				
Resistance To Household Chemicals	No Damage	Min. Class AA	Class AA	ISO 10545 Part-13 IS 13630 Part-8
Resistance To Acids & Alkalis (Except HF Acid)	No Damage	Min. Class AA	Class AA	ISO 10545 Part-13 IS 13630 Part-8
Stain Resistance	Min. Class 3	Min. Class 1	Class 1	ISO 10545 Part-14 IS 13630 Part-8

Packing Specification

Size (mm)	Thickness (mm)	Weight (Kg.)	No. of Tiles / Box	Area Sq. mtr./ Box
600x600mm	10 mm	29 kg.	04 pcs.	1.44m ²

Wooden Planks

Size (mm)	Thickness (mm)	Weight (Kg.)	No. of Tiles / Box	Area Sq. mtr./ Box
195x1000mm	10.0 mm	20.6 kgs.	05 pcs.	0.975m ²

Technical Specification

CHARACTERISTICS	Requirement as per ISO 13006:2018 Gr B11a 3.0 ≤ E ≤ 6.0%	Requirement as per IS 15622:2017 Gr B11a 3.0 ≤ E ≤ 6.0%	Value	Test Method
(A) DIMENSION & SURFACE QUALITY				
Deviation In Length & Width	± 0.3%, ± 1.0 mm	± 0.1%	± 0.1%	ISO 10545 Part-2 IS 13630 Part-1
Deviation In Thickness	± 5.0%, ± 0.5 mm	± 5.0%	± 3.0%	ISO 10545 Part-2 IS 13630 Part-1
Straightness of Edge	± 0.3%, ± 0.8 mm	± 0.1%	± 0.1%	ISO 10545 Part-2 IS 13630 Part-1
Rectangularity	± 0.3%, ± 1.5 mm	± 0.1%	± 0.1%	ISO 10545 Part-2 IS 13630 Part-1
Surface Flatness	± 0.4%, ± 1.8 mm	± 0.5%	± 0.25%	ISO 10545 Part-2 IS 13630 Part-1
Surface Quality	Min. 95% of Tiles shall be free from visible defects that would impair the appearance of a major area of the tiles	Min. 95% of Tiles shall be free from visible defects that would impair the appearance of a major area of the tiles	Min. 95% of Tiles shall be free from visible defects that would impair the appearance of a major area of the tiles	ISO 10545 Part-2 IS 13630 Part-1
(B) PHYSICAL & THERMAL PROPERTIES				
Water Absorption % By Wt.	3.0 ≤ Eb ≤ 6.0, Ind. 6.5 Max.	3.0 ≤ Eb ≤ 6.0 Ind. 6.2 Max.	5.0-6.0%	ISO 10545 Part-3 IS 13630 Part-2
Flexural Strength (MOR) In N/mm ²	Avr. 22, Ind. Min. 20	Avr.22, Ind. Min. 20	≥ 25 N/mm ²	ISO 10545 Part-4 IS 13630 Part-6
Breaking Strength in N	1000 N Min.	1000 N Min.	> 1000 N	ISO 10545 Part-4 IS 13630 Part-6
Resistance to Surface Abrasion	Manufacturer to State Class	PEI II Min.	Min. III	ISO 10545 Part-7 IS 13630 Part-11
Co-efficient of Liner Thermal Expansion from ambient temp to 100°C (K ⁻¹)	9x10 ⁻⁶ Max.	9x10 ⁻⁶ Max.	≤ 9x10 ⁻⁶	ISO 10545 Part-8 IS 13630 Part-4
Thermal Shock Resistance	10 Cycles Min.	10 Cycles Min.	No Damage after 10 Cycles	ISO 10545 Part-9 IS 13630 Part-5
Moisture Expansion in mm/M	Test Method Available	0.03 Max.	Nil	ISO 10545 Part-10 IS 13630 Part-3
Crazing Resistance	Required	4 Cycles at 7.5 bar Min.	Resistance	ISO 10545 Part-11 IS 13630 Part-9
Frost Resistance	Resistance	Resistance	Resistance	ISO 10545 Part-12 IS 13630 Part-10
Moh'S Scratch Hardness	Min. 5	Min. 4	Min. 4	EN 101 IS 13630 Part-13
(C) CHEMICAL PROPERTIES				
Resistance To Household Chemicals	No Damage	Min. Class AA	Class AA	ISO 10545 Part-13 IS 13630 Part-8
Resistance To Acids & Alkalis (Except HF Acid)	No Damage	Min. Class AA	Class AA	ISO 10545 Part-13 IS 13630 Part-8
Stain Resistance	Min. Class 3	Min. Class 1	Class 1	ISO 10545 Part-14 IS 13630 Part-8

**Not Applicable for structured Tiles

Packing Specification

Size (mm)	Thickness (mm)	Weight (Kg.)	No. of Tiles / Box	Area Sq. mtr./ Box
397x397mm	8.3 mm	13.4 kgs.	05 pcs.	0.79m ²
397x397mm	8.3 mm	16.0 kgs.	06 pcs.	0.94m ²

PORCELAIN TILES UNRECTIFIED

Technical Specification

CHARACTERISTICS	Requirement as per ISO 13006:2018 Gr B11a 3.0 ≤ E ≤ 6.0%	Requirement as per IS 15622:2017 Gr B11a 3.0 ≤ E ≤ 6.0%	Value	Test Method
(A) DIMENSION & SURFACE QUALITY				
Deviation In Length & Width	± 0.6%, ± 2.0 mm	± 0.4%	± 0.4%	ISO 10545 Part-2 IS 13630 Part-1
Deviation In Thickness	± 5.0%, ± 0.5 mm	± 5.0%	± 3.0%	ISO 10545 Part-2 IS 13630 Part-1
Straightness of Edge	± 0.5%, ± 1.5 mm	± 0.3%	± 0.3%	ISO 10545 Part-2 IS 13630 Part-1
Rectangularity	± 0.5%, ± 2.0 mm	± 0.3%	± 0.3%	ISO 10545 Part-2 IS 13630 Part-1
Surface Flatness	± 0.5%, ± 2.0 mm	± 0.5%	± 0.4%	ISO 10545 Part-2 IS 13630 Part-1
Surface Quality	Min. 95% of Tiles shall be free from visible defects that would impair the appearance of a major area of the tiles	Min. 95% of Tiles shall be free from visible defects that would impair the appearance of a major area of the tiles	Min. 95% of Tiles shall be free from visible defects that would impair the appearance of a major area of the tiles	ISO 10545 Part-2 IS 13630 Part-1
(B) PHYSICAL & THERMAL PROPERTIES				
Water Absorption % By Wt.	3.0 ≤ Eb ≤ 6.0, Ind. 6.5 Max.	3.0 ≤ Eb ≤ 6.0 Ind. 6.2 Max.	5.0-6.0%	ISO 10545 Part-3 IS 13630 Part-2
Flexural Strength (MOR) In N/mm ²	Avr. 22, Ind. Min. 20	Avr.22, Ind. Min. 20	≥ 25 N/mm ²	ISO 10545 Part-4 IS 13630 Part-6
Breaking Strength in N	600 N Min.	600 N Min.	> 800 N	ISO 10545 Part-4 IS 13630 Part-6
Resistance to Surface Abrasion	Manufacturer to State Class	PEI II Min.	Min. III	ISO 10545 Part-7 IS 13630 Part-11
Co-efficient of Liner Thermal Expansion from ambient temp to 100°C (K ⁻¹)	9x10 ⁻⁶ Max.	9x10 ⁻⁶ Max.	≤ 9x10 ⁻⁶	ISO 10545 Part-8 IS 13630 Part-4
Thermal Shock Resistance	10 Cycles Min.	10 Cycles Min.	No Damage after 10 Cycles	ISO 10545 Part-9 IS 13630 Part-5
Moisture Expansion in mm/M	Test Method Available	0.03 Max.	0.02 Max.	ISO 10545 Part-10 IS 13630 Part-3
Crazing Resistance	Required	4 Cycles at 7.5 bar Min.	Resistance	ISO 10545 Part-11 IS 13630 Part-9
Frost Resistance	Resistance	Resistance	Resistance	ISO 10545 Part-12 IS 13630 Part-10
Moh'S Scratch Hardness	Min. 5	Min. 4	Min. 4	EN 101 IS 13630 Part-13
(C) CHEMICAL PROPERTIES				
Resistance To Household Chemicals	No Damage	Min. Class AA	Class AA	ISO 10545 Part-13 IS 13630 Part-8
Resistance To Acids & Alkalis (Except HF Acid)	No Damage	Min. Class AA	Class AA	ISO 10545 Part-13 IS 13630 Part-8
Stain Resistance	Min. Class 3	Min. Class 1	Class 1	ISO 10545 Part-14 IS 13630 Part-8

**Not Applicable for structured Tiles

Packing Specification

Size (mm)	Thickness (mm)	Weight (Kg.)	No. of Tiles / Box	Area Sq. mtr./ Box
300x300mm (Unrectified)	7.2 mm	13.5 kgs.	10 pcs.	0.90m ²

Notes & Recommendation

UNDERSTANDING ICONS



APPLICATION



NOTES

- All technical specifications in this catalogue are for premium grade material only.
- SHADE/SIZE VARIATION are inherent characteristics to ceramics. Certain products purposely have variations which are part of design & process. The same have been indicated.
- It is recommended to blend tiles by mixing tiles from various boxes & check for natural hue before fixing the tiles.
- It is recommended to check the tiles before laying/fixing. Quality standards cover 1st/Premium Quality only.
- Company's liability is limited on material that has not been laid.
- NO COMPLAINT SHALL BE ENTERTAINED ON TILES ALREADY FIXED/LAID.
- The liability is also limited to the material supplied by the company; no other claim is entertained under any circumstances.
- No complaint is entertained on decoration done on tiles, other than the ones done

GENERAL NOTE : Any complaint must be brought to the company's notice within 10 days of purchase & before fixing of tiles.

How to avoid defects & complaints :

- Use good quality Tiles
- Choose good quality Tiles, with proper consideration to area intended of usage.
- Avoid careless laying of Tiles
- Avoid poor maintenance-for instance, by cleaning with strong Chemicals or with abrasive equipment e.g. metallic scrubber
- Always keep Tiled area clean & ensure dusting/mopping regularly
- Put Doormats/Foot-mats at all strategic locations to avoid loose debris/dust from entering the Tiled area

List of Detergents For Removal of Stain

STAIN (Created By)	Beer	Blood	Calcar	Cement	Cigarette	Soft Drinks	Coffee	Edible Oil	Glue	Ice Cream	Ink	Juices	Marker Ink	Nicotine	Paints	Resin	Rust	Tar	Tea	Turmeric	Wine
SOLVENTS (Turpentine, acetone, trichloroety - line etc.)								•	•		•		•			•					
SODIUM HYPO (Chlorite (NaOCL))												•								•	
ACIDS DILUTED (Hydrochloric acid*)			•	•	•						•			•	•		•			•	
ALKALI (Sodium hydroxide/potassium hydroxide)	•	•				•	•			•											•

*Commercial grade shall not be used