



megabai

HOME · KITCHEN · BATHROOM

Technical Specification

| CHARACTERISTIC | STANDARD AS PER ISO13006:2012/ EN14411 Gr.BIa | STANDARD AS PER IS15622:2017 Gr.BIa | MEAN VALUE OF BAI TILES | TEST METHOD |
|--|---|---|-----------------------------------|----------------------------|
| Regulatory Properties | | | | |
| Deviation in length and width | ± 0.50 % | ± 0.10 % | ± 0.10 % | ISO 10545-2 & IS 13630-1 |
| Deviation in thickness | ± 5.00 % | ± 5.00 % | ± 4.00 % | ISO 10545-2 & IS 13630-1 |
| Straightness in side | ± 0.50 % | ± 0.10 % | ± 0.10 % | ISO 10545-2 & IS 13630-1 |
| Rectangularity | ± 0.60 % | ± 0.10% | ± 0.10 % | ISO 10545-2 & IS 13630-1 |
| Surface flatness Central Curvature | ± 0.50 % | ± 0.50 % | ± 0.10 % | ISO 10545-2 & IS 13630-1 |
| Surface flatness Edge Curvature | ± 0.50 % | ± 0.50 % | ± 0.10 % | ISO 10545-2 & IS 13630-1 |
| Surface flatness Warpage | ± 0.50 % | ± 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 | $\Delta E < 0.75$ | N.A. | No Change | ISO 10545-16 |
| Glossiness (With Nano Polished) | As per Manufacturer | As per Manufacturer | > 90°* | Gloss Meter 60° |
| Glossiness (Without Polished) | As per Manufacturer | As per Manufacturer | 7° < GLOSS < 14°* | Gloss Meter 60° |
| Glossiness (Satin) | As per Manufacturer | As per Manufacturer | 15° < GLOSS < 25°* | Gloss Meter 60° |
| Structural Properties | | | | |
| Water absorption | ≤ 0.50 % | ≤ 0.080 % | ≤ 0.050 % | ISO 10545-3 & IS 13630-2 |
| Bulk density | > 2.00 g/cc | Min. 2.20 g/cc | > 2.28 gm/cc | DIN51082 & IS 13630-2 |
| Massive Mechanical Properties | | | | |
| Modulus of rupture | Min. 35.0 N/mm ² | Min. 35.0 N/mm ² | Min. 37.0 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. 1600.0 N | ISO 10545-4 & IS 13630-6 |
| Surface Mechanical Properties | | | | |
| MOH'S hardness | Min. 4 | Min. 5 | Min 4** | EN 101 & IS 13630-13 |
| Surface abrasion resistance-Glossy # | As per Manufacturer | Min. Class II | Min. Class 2 / Min. Class II | ISO 10545-7 & IS 13630-11 |
| Surface abrasion resistance-Matt # | As per Manufacturer | Min. Class II | Min. Class 3 / Min. Class II | ISO 10545-7 & IS 13630-11 |
| Thermal Hygrometric Properties | | | | |
| Moisture expansion | Max. 0.06 | Max. 0.02 | NIL | ISO 10545-10 & IS 13630-3 |
| Thermal expansion(COE) at 100°C | As per Manufacturer | Max. 7.0 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 Manufacturer | Min. 4 Cycle | Min. 6 Cycle | ISO 10545-11 & IS 13630-9 |
| Impact resistance(COR) | As per Manufacturer | Min. 0.55 | Min. 0.55 | ISO 10545-5 & IS 13630-14 |
| Frost resistance | As per Manufacturer | As per Manufacturer | 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 Manufacturer | As per Manufacturer | Min. Class GLB***/Min. Class A*** | ISO 10545-13 & IS 13630-8 |
| **Resistance to High Concentrate Acid and Alkalis Glazed | As per Manufacturer | As per Manufacturer | Min. Class GHB***/Min. Class A*** | ISO 10545-13 & IS 13630-8 |
| Safety Properties | | | | |
| Skid resistance(DCOF-DRY) | As per Manufacturer | As per Manufacturer | > 0.40 | ISO 10545-17 |
| Slip resistance(DCOF)(R value)## | As per Manufacturer | As per Manufacturer | N.A. | ISO 10545-17 |
| Determination of Lead & Cadmium Release for Glazed Tiles | As per Manufacturer | N.A. | Dose not yield Pb & Cd | ISO 10545-15 |
| Fire Resistance | As per Manufacturer | As per Manufacturer | Fire Proof | N.A. |

* Glossiness 90% with nano technology

** Without nano technology (Unpolished Vitrified tiles)

*** Except Hydrofluoric Acid & it's compound

Glaze tiles Intended for use on floor

As per customer requirement