

TECHNICAL DATA SHEET

UNGLAZED PORCELAIN TILES

Waringa Porcelain Floor Tiles

| Dimensions and Surface Quality | Test Method | Standard Values | Test Result |
|---|------------------|---|--|
| Length and Width | ISO 10545-2 | 0.60% | 0.40% |
| Rectangularity | ISO 10545-2 | 0.60% | 0.40% |
| Thickness | ISO 10545-2 | 5% | 3% |
| Straightness of Sides | ISO 10545-2 | 0.50% | 0.40% |
| Surface Flatness | | | |
| a) Centre curvature Centre curvature, related to the diagonal, calculated from the work size | ISO 10545-2 | 0.50% | 0.40% |
| b) Edge curvature Edge curvature, related to the corresponding work size | ISO 10545-2 | 0.50% | 0.40% |
| b) Warpage Warpage, related to the diagonal, calculated from the work size | ISO 10545-2 | 0.50% | 0.40% |
| Surface Quality | ISO 10545-2 | A Minimum of 95% of the tiles are to be free from visible defects which can impair the appearance of a major area of tiles. | Pass |
| Physical Properties | | | |
| Water Absorption | ISO 10545-3 | 0.5% (Minimum) | 0.1% (Maximum) |
| Modulus of Rupture (Mpa), in N/mm ² | ISO 10545-4 | 27 N/mm ² (276 kg/cm ²) | 42 N/mm ² (428 kg/cm ²) |
| Moh's Scale of Hardness (Minimum) | ISO 10545-6 | 6 (Minimum) 205mm | 6 (Minimum) 163mm |
| Surface Abrasion Resistance | | | |
| Unglazed Tiles | ISO 10545-7 | Unglazed - PEI IV | Min Class IV |
| Glazed Tiles | | Glazed - PEI III | Min Class III |
| Thermal Expansion | ISO 10545-8 | Max. $9 \times 10^{-6} \text{ C}^{-1}$ | $6.5 \times 10^{-6} \text{ C}^{-1}$ |
| Resistance to Thermal Shock | ISO 10545-9 | Resistant | Resistant |
| Frost Resistance | ISO 10545-12 | Resistant | Resistant |
| Resistance to Staining | ISO 10545-14 | Minimum Class 3 | Class 1 |
| Colour Resistance to Light | BS-6431 (Part 6) | Resistant | Resistant |
| Resistance to Chemicals | ISO 10545-13 | Resistant | Resistant |

The above Johnson Tiles technical specifications are a general indication only.
Please contact your local Johnson Tiles representative or state office for more detailed information.