

Highveld

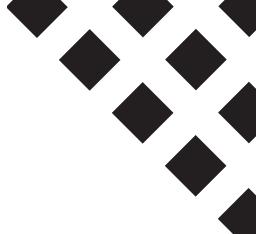
Product Name: Stoneware Porcelain Product Type: Glazed Floor Tiles

ITEM	TEST METHOD	STANDARD REQUIREMENTS	RESULTS
Product Size	ISO-10545-2		600mm x 1200mm x 10mm
Thickness	ISO-10545-2	±5% (Max 0.45mm)	10±0.3mm
Straightness of Side (mm)	ISO-10545-2	±0.5% (Max 1.5mm)	±0.5mm
Rectangularity (Average)	ISO-10545-2	±0.5% (Max 2.0mm)	±1.5mm
Centre Curvature (mm)	ISO-10545-2	±0.5% (Max 2.0mm)	-0.65mm ~ +1.3mm
Edge Curvature	ISO-10545-2	±0.5% (Max 2.0mm)	-0.5mm ~ +1mm
Warpage (mm)	ISO-10545-2	±0.5% (Max 2.0mm)	0.4mm ~ +0.7mm
Water Absorption %	ISO-10545-3	0.5%< E ≤3%	Average: 1.2%
Modulus of Rupture (Mpa)	ISO-10545-4	Average≥30N/MM2	Average≥38N/MM2
Breaking Strength (N)	ISO-10545-4	Average≥1100N	Average≥1850N
Abrasion Resistance (PEI Rating)	ISO-10545-7	≥Class3	Class4
Linear Thermal Expansion	ISO-10545-8		Pass
Resistance to Thermal shock	ISO-10545-9	Resistant	Resistant
Moisture Expansion	ISO-10545-10		0.034% (mm/m)
Resistance to Cracking	ISO-10545-11	No Cracking or Flaking	Resistant
Frost Resistance	ISO-10545-12	No Cracking or Flaking	Resistant
Chemical Resistance	ISO-10545-13	Resistant	Resistant
Stain Resistance	ISO-10545-14	≥Class3	Class5
Small Colour Difference	ISO-10545-16	Resistant	Resistant
Slip Resistant	ISO-10545-17		R9
Mohs Hardness	BS 6431-13-1986		Class5

Applications

Product features are with good abrasion resistance and significant scratch hardness. As such, it is indicated for flooring in Public Commercial areas as well for domestic use.





ISO 13006:2018 (E)

Table 1 - Classification of ceramic tiles with respect to water absorption and shaping

Shaping	Group I Ev≤3%	Group II a 3% <ev≤6%< th=""><th>Group II b 6%<ev≤10%< th=""><th>Group III Ev>10%</th></ev≤10%<></th></ev≤6%<>	Group II b 6% <ev≤10%< th=""><th>Group III Ev>10%</th></ev≤10%<>	Group III Ev>10%
A Extrued body	Group A I a Ev≤0.5% [see Annex M]	Group A II a-1 ^a [see Annex B]	Group A II b-1 ^a [see Annex D]	Group A III [see Annex F]
	Group A I b 0.5% <ev≤3% [see Annex A]</ev≤3% 	Group A II a-2 ^a [see Annex C]	Group A II b-2 ^a [see Annex E]	
B Dry pressed body	Group B I a Ev≤0.5% [see Annex G]	Group B II a [see Annex J]	Group B II b [see Annex K]	Group B III b [see Annex L]
	Group B I b 0.5% <ev≤3% [see Annex H]</ev≤3% 			

- A. Groups A II a & A II b are divided into two subgroups [Parts1and2] with different product specifications.
- B. Group BIII covers glazed tiles only. There is a low quantity of dry-pressed unglazed tiles produced with water absorption greater than 10% mass fraction, which is not covered by this product group.

According to the ISO Standard, Etienne Tiles Belongs to Group I, (Blb), which is Stoneware Porcelain.