

TECHNICAL DATA SHEET

UNGLAZED PORCELAIN TILES ISO 13006 and EN 14411 - Annex G - Group BI_a

PHYSICAL PROPERTIES	TEST STANDARD	REQUIREMENT						TOPCER VALUE
		Size 96x96	Size 71x146	Size 146x146	Size 246x 246	Size 96x296	Size 296x296	
DIMENSIONS AND SURFACE QUALITY:								
Length and width	ISO 10545-2	± 1 %	± 1 %	± 0,75 %	± 0,6 %	± 0,75 %	± 0,6 %	Conforms
Thickness	ISO 10545-2	± 10 %	± 10 %	± 5 %	± 5 %	± 5 %	± 5 %	Conforms
Straightness of sides	ISO 10545-2			± 0,5 %				Conforms
Rectangularity	ISO 10545-2			± 0,6 %				Conforms
Surface flatness, (curvature and warpage)	ISO 10545-2			± 0,5 %				Conforms
Surface quality	ISO 10545-2			≥ 95%				Conforms
PRODUCT QUALITY AND DURABILITY:								
Water absorption	ISO 10545-3			≤ 0,5%				≤ 0,1%
Breaking strength (Thickness ≥ 7,5 mm)	ISO 10545-4			≥ 1300 N				≥ 1800 N
Modulus of rupture	ISO 10545-4			≥ 35 N/mm ²				≥ 50 N/mm ²
Impact resistance	ISO 10545-5			Declared Value				No visible defects
Resistance to deep abrasion (unglazed tiles)	ISO 10545-6			≤ 175 mm ³				123 mm ³
Coefficient of linear thermal expansion	ISO 10545-8			Declared Value				5,6 x 10 ⁻⁶ °C ⁻¹
Thermal shock resistance	ISO 10545-9			No visible defects				Conforms
Moisture expansion	ISO 10545-10			Declared Value				< 0,1 mm/m
Frost resistance	ISO 10545-12			No visible defects				Conforms
Resistance to chemicals	ISO 10545-13			No visible defects				Conforms
Resistance to staining	ISO 10545-14			No permanent staining				Conforms
SLIP RESISTANCE:								
Areas with footwear	BS-7976-2 PENDULUM (CERAM - UK)	DRY 60 61 67 81 87	WET 37 53 54 70 72	Size 10x10/15x15 Plain finish (Smooth) Riven (RT) finish Square Studs (SS) finish Round Studs (RC) finish Diamond Studs (DD) finish				
	DIN 51130 (FACHHOCHSCHUL E KOBLENZ - DE)	R9 - from 6° to 10° R10 - over 10° to 19° R11 - over 19° to 27° R12 - over 27° to 35°		Size 30x30 Plain Finish (Smooth) Size 10x10, 15x15 Plain Finish (Smooth) Square Studs (SS), Round Studs (RC) Finish, 30x30 Rubber(R) Riven (RT), Diamond studs (DD) Finish				
	UNE-ENV 12633 (ITC - SPAIN)	25 48 43 46 55 45 52 49		Size 10x10/30x30 Plain Finish (Smooth) 30x30 Dies Lined with spec. Rubber (R) Plain Finish 10x10, 15x15 Dies Lined with Rubber (R) Plain Finish Riven (RT) Finish Square Studs (SS) Finish – spec. 1mm Square Studs (SS) Finish Round Studs (RC) Finish Diamonds Studs (DD) Finish				
Displacement volume	DIN 51130 / BGR 181 (FACHHOCHSCHUL E KOBLENZ - DE)	V5 V6 V7		4,67 cm ³ /dm ² Square Studs (SS), 5,08 cm ³ /dm ² Riven (RT) 6,27 cm ³ /dm ² Round Studs (RC) 7,09 cm ³ /dm ² Diamond Stud (DD)				
Areas with bare-footed	DIN 51097(F. KOBLENZ - DE) (F. KOBLENZ - DE) (CERAM - UK) (CERAM - UK)	A - from 12° to 18° B - over 18° to 24° B - over 18° to 24° C - over 24°		15x15 / 30x30 Plain Finish (Smooth) 10x10 / 30x30 Rubber(R) 10x10 / 15x15 Plain Finish Round Studs (RC), Diamond Studs (DD), Riven (RT), Square Studs (SS)				