

Smink Studio glazed ceramic floor tiles

Handmade in Portugal: extruded clay, pressed by hand into shape, then glazed and fired. Every tile is made to order.

Product

Product	Glazed ceramic floor tiles, screen-printed and relief	Classification	Group AIII: extruded, water absorption above 10% (ISO 13006)
Standard size	140 × 140 mm (5½ × 5½ in); other sizes made to order	Thickness	14 mm (⅝ in) for floors; other thicknesses made to order
Glazes	Glossy or satin matt. Only satin matt glazes have been slip-tested; see note 3	Recycled content	Around 25% recycled material

Floor surface properties Typical values for each glaze family; see note 1

Property	Standard	Glossy glazes	Satin matt glazes
 Slip resistance	EN 16165, Annex C	Not tested	Pendulum: 8 (Rd)
	EN 16165, Annex A		Ramp, wet and barefoot: 6°
	EN 16165, Annex B		Ramp, oil-wet and shod: 0°
 Surface abrasion	ISO 10545-7	Both families: PEI class V	
 Stain resistance	ISO 10545-14	Both families: class 5 for green chromium, iodine and olive oil	
	ASTM C1378-04	Not affected Manufacturer's data	
 Chemical resistance	ISO 10545-13	Both families: class A for household chemicals and swimming-pool salts; class LA for low-concentration acids and alkalis	
	ASTM C650-04	Not affected by any of 13 test solutions, including 18% hydrochloric acid Tested on S001 Red chili pepper (special firing)	
 Crazing resistance	ISO 10545-11	No crazing on any of 5 tiles See note 4	Not tested

Dimensions and surface quality ISO 10545-2 · measured on 140 × 140 × 10 mm tiles · CTCV 4179/25

Characteristic	Measured	Requirement (AIII)
Length and width	Average 137.6 mm; 1.2–2.1% under 140 mm	±2.0% / ±4.0 mm
Thickness	9.7–10.2 mm (10 mm tiles)	±10%
Straightness of sides	–0.8% to +0.9%	±1.0%
Rectangularity	–1.4% to +1.3%	±1.0%

Characteristic	Measured	Requirement (AIII)
Centre curvature	0.0% to 1.4%	±1.5%
Edge curvature	–1.4% to +1.0%	±1.5%
Warpage	0.1% to 1.5%	±1.5%
Surface quality	All 30 tiles defect-free	≥95% of tiles

On some tiles, length and width (–2.1% on 2 of 10 tiles) and rectangularity fall slightly outside the ISO 13006 limits, as is usual for handmade tiles. Allow for this when setting joint widths.

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Body properties The same clay body is used for every Smink Studio tile, whatever the glaze

Property	Standard	Result	Requirement (ISO 13006, Group AIII)	Report
 Breaking strength and modulus of rupture	ISO 10545-4	Breaking strength 1,985 N Modulus of rupture 19.7 N/mm ² Tile 12.3 mm thick: the nearest tested thickness to 14 mm floor tiles; see note 2	—	CTCV 571/22
		Breaking strength 1,048 N Modulus of rupture 19.6 N/mm ² Tile 9.0 mm thick at the point of test	≥ 600 N ≥ 8 N/mm ² average; ≥ 7 N/mm ² individual	CTCV 4179/25
 Water absorption	ISO 10545-3	16.2% average (vacuum method)	Above 10% (defines Group AIII)	CTCV 4179/25
	ASTM C373-88	15.9% average	—	CTCV 1.5.1079/14
 Frost resistance	ISO 10545-12	No damage to any of 10 tiles after 100 freeze-thaw cycles	Required	CTCV 4179/25
		Also no damage after 100 cycles to -20 °C, colder than the standard requires	—	CTCV 1144/18
 Thermal shock resistance	ISO 10545-9	No visible defects	No limit set	CTCV 4179/25
 Moisture expansion	ISO 10545-10	0.1 mm/m average; 0.2 mm/m maximum	No limit set	CTCV 4179/25

Where to use Smink Studio floor tiles

 Interior floors, dry areas 14 mm thick tiles, on interior floors in dry areas.	 Wet or barefoot areas Bathrooms, showers and pool surrounds: check anti-slip rating before use.
 Exterior floors The clay body is frost-resistant, but outdoor floors get wet: check anti-slip rating before use.	 Glazes Floor suitability by colour is set out in the Smink Studio glaze guides.

Notes

- Glaze families.** Smink Studio tiles are made to order from a wide range of glazes. Glaze results were measured on representative glazes from the glossy and satin matt families and are typical of each family; individual colours may vary.
- Floor-tile thickness.** No tests have yet been carried out on 14 mm tiles. The 12.3 mm result is the closest guide to their strength; breaking strength rises with thickness, while the modulus of rupture, a property of the clay body, is the same at 9 mm and 12.3 mm.
- Slip resistance.** The results above, on a satin matt glaze, indicate low slip resistance in wet conditions. Glossy glazes have not been slip-tested.
- Long-term crazing.** A few glossy glazes may develop fine crazing over time. They are flagged in the Smink Studio glaze guides.
- Handmade character.** Variation in size, shape, shade and texture is intentional and characteristic of handmade tiles. View the range before ordering and blend tiles from several boxes during installation.
- Testing.** Tests carried out by CTCV (Centro Tecnológico da Cerâmica e do Vidro, Coimbra, Portugal), an ISO/IEC 17025-accredited laboratory, on tiles from Smink Studio's production partner, 2014–2025. Test reports for body properties are available on request.