Technical data sheet for Zellige tiles

Composition, applicable standards and laboratory testing

APPLICABLE STANDARDS

Zellige tiles are traditional Moroccan tiles intended for wall decoration. They are handmade using artisanal processes; as a result, each tile has unique characteristics arising from its non-industrial production.

International standards and classifications do not cover Zellige tiles because of their "non-standard" nature. We have nevertheless commissioned a series of tests on our tiles using protocols applicable to ceramic tiles; the results are presented at the end of this document.

Although they are not mandatory for this type of product, CE and UKCA certifications have been obtained for the most requested colour, pearly white ref. 1019, which successfully passed all required tests. ITC-AICE Laboratory, Castellón (Spain), May 2026.

COMPOSITION AND PRODUCTION

Zellige tiles are made using traditional methods at our production sites in Morocco. The tiles are made from raw, unrefined natural clay from the Fez region. This "white" clay is kneaded with water, shaped by hand, dried naturally and then kiln-fired.

The glazes, of standardized European origin, are fired in gas kilns at 1000 °C using a controlled cycle that ensures complete vitrification of the glaze and maximum strength of the clay body.

SIZE AND FINISH

Zellige offers tones that vary in depth, saturation and reflection. Each tile has an irregular surface and a unique colour. Tiles may also vary in thickness (± 1.5 mm), flatness or size.

The supplied tiles show variations and irregularities that we consider acceptable and consistent with the definition of Zellige. Samples are displayed in our showroom and images are available on our website.

WEIGHT AND PACKAGING

One square metre (11–12 mm thick) weighs between 10 and 12 kg. For transport, the weight of the packaging, pallet and protective materials must be added.

The tiles are protected with separators and packed in cardboard boxes. Example: 10 × 10 cm tiles in 32 × 20.6 × 10 cm boxes, 50 tiles per box, approximately 10 kg.

LABORATORY TESTS

01 Surface abrasion resistance

ENAC Laboratory, AICE-ITC, 2017 · Standard UNE-EN ISO 10545-7:1999

Classification: Class 4. Abrasion stage at failure: > 12,000 revolutions.

02 Thermal shock resistance

ENAC Laboratory, AICE-ITC, 2017 · Standard UNE-EN ISO 10545-9:2013

5 tiles tested; 0 tiles showed visible defects. No signs of thermal shock were observed.

03 Chemical resistance

ENAC Laboratory, AICE-ITC, 2017 · Standard UNE-EN ISO 10545-13:1998

Ammonium chloride 100 g/l: no visible effect. Hydrochloric acid 3%: no visible effect.

04 VOC emissions

Eurofins Product Testing, 2021 · Volatile organic compounds: substances released into indoor air by certain materials.

French VOC regulation (DEVL1133129A): A+

CMR components, France (DEVP0908633A, DEVP0910046A): compliant

CAM Edilizia, Italy (GU no. 259): compliant

AgBB, Germany: compliant

Belgian regulation (C-2014/24249): compliant

Indoor Air Comfort GOLD (Eurofins): compliant

BREEAM International: exemplary level

LEED v4.1 BETA: compliant

05 Heavy metal release

INNOVARCILLA Laboratory, 2024 · Standard ISO 10545-15 (acetic acid solution, 24 h)

No detectable heavy metals for 90% of the most requested colour references; values below the limit** of 0.8 mg/dm² for the others.

** This limit applies to glazed containers intended to hold food, not to decorative tiles. Nevertheless, as a precaution, we do not recommend installing Zellige on surfaces that are in regular contact with acidic foods.

Note: due to the non-standard nature of Zellige tiles, the tests are valid only for the tiles tested.