

Technical sheet for Zellige tiles

DESCRIPTION :

Zellige tiles are made using the highest quality of clay found in the Fes region of Morocco. Once found, either in underground or open-pit mines, this clay is soaked in water until it reaches a soft texture. The clay is then hand-filtered to extract impurities such as rocks and branches.

After filtering, a skilled artisan flattens the clay into square shapes by hand, ensuring it is compact and free of air bubbles. The square tiles of raw earth are then sun-dried on a rooftop.

Once the tiles are well-dried, another skilled artisan applies glaze colors by hand, one by one, to a single side of the tiles. Once dried, the tiles are meticulously stacked in a natural olive core oven. In these traditional Moroccan ovens, heat circulates unevenly, giving each handmade tile its unique tone, texture, and color. This perfect imperfection is what sets Moroccan zellige apart from all other tiles on Earth.

Once fired, a skilled artisan will use a medieval tool, a combination of an axe and a hammer, to cut and shape each tile into the desired shape. The end result is a Moroccan zellige tile with variations in tone and size, as well as small chips, punctures, and cracks.

* The cement tiles are only decorative and not construction material.

APPLICATIONS :

Interior walls :

Suitable for all residential and commercial spaces after closing the pores with a sealer and a wax.

Floor :

Suitable for medium to high traffic in residential and commercial areas after closing the pores with a sealer.

Bathrooms :

Suitable for all bathrooms including humid areas like showers, etc.

Exterior :

Suitable for non-permanent outdoor installations that are exposed to water after closing the pores with an outdoor sealer. Some colors fade faster than others when exposed to UV rays. (Contact us for more information).

Applicable standards :

Zellige tiles are handmade according to the traditional methods. Therefore, each zellige tile has unique

characteristics due to its non-industrial production.

International standards (CE, ISO, DIN, etc.) do not take into account zellige tiles due to their « Non-standard » nature.

However, we have conducted a series of tests on our zellige tiles according to the standards applied to ceramic tiles. The results are presented below:

Determination of surface abrasion resistance:

ENAC laboratory, AICE-ITC, 2017.

Tests performed according to standard : UNE-EN ISO 10545-7:1999.

Results: Classification: CLASS 4. Abrasion stage at failure : > 12000 rev.

Determination of resistance to thermal shock:

ENAC laboratory, AICE-ITC, 2017.

Tests performed according to standard : UNE-EN ISO 10545-9:2013.

Results : Number of tested tiles : 5; Number of tiles with visible defects: 0.

Observations: No signs of thermal shock observed on the tiles.

Determination of chemical resistance:

ENAC laboratory, AICE-ITC, 2017.

Tests performed according to standard : UNE-EN ISO 10545-13:1998.

Results : Ammonium chloride 100g/l : No visible effects .

Hydrochloric acid 3% : No visible effects.

**Please note that due to the non-standard nature of zellige tile, testing is for tested tiles only.*

Size and finish :

Zellige tiles offer a range of tones that vary in depth, saturation and reflection. Each tile has an irregular surface and a unique color.

The tiles may also vary in thickness (+/- 1.5mm), flatness or size.

The tiles sent will have variations and irregularities that we consider acceptable and in accordance with the definition of Zellige – some tiles are displayed in our showroom and images are available on our Instagram page for more information.

Glazed Tile Performance

Moh's Hardness | ASTM C1895 - 8

Dynamic Coefficient Of Friction (DCOF) | ANSI A326.3 – 0.16

Breaking Strength | ASTM C648 – 426 lb_f, average

Absorption | ASTM C373 – 18.8%

“Unglazed Natural” ONLY Tile Performance

Moh's Hardness | ASTM C1895 - 3

Dynamic Coefficient Of Friction (DCOF) | ANSI A326.3 – 0.84

Breaking Strength | ASTM C648 – 426 lb_f, average

Absorption | ASTM C373 – 20.3% - prior to sealing

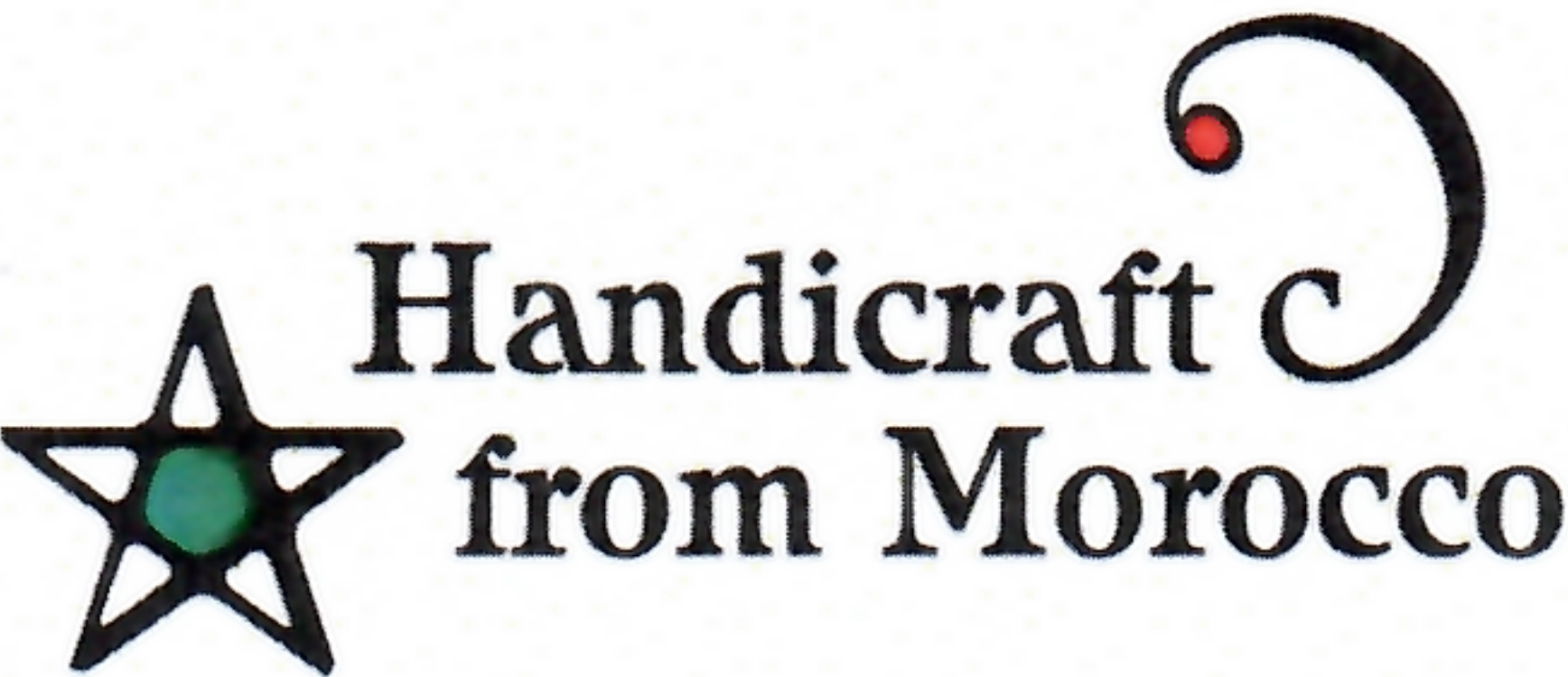
Third party testing conducted and results provided by SGS TEC Services in accordance with ASTM and ANSI standards

VOC test emission :

Eurofins product testing, 2021

French regulations on VOCs (DEVL 1133129 ^a) :	ÉMISSIONS DANS L'AIR INTÉRIEUR A+
French regulations on CMR components (DEVP0908633A et DEVP0910046A) :	PASS
Italian CAM Edilizia (GU n.259) :	PASS
ABG/AgBB (Ausschuss zur gesundheitlichen Bewertung von Bauprodukten):	PASS
Belgian regulation (C-2014/24249):	PASS
Indoor Air Comfort GOLD (Eurofins):	PASS
BREEAM International:	Exemplary level
LEED v4.1 BETA:	PASS

Customers are responsible for hiring a qualified installer who has experience installing Zellige tiles.
Based on the product specifications and ratings provided above, consult a licensed contractor or installer regarding the application of these tiles in your specific project and site conditions prior to installation.
Each piece of Zellige tile is handcrafted, and extreme variations in color, shape, and thickness are inherent and predictable.
Customers should see Zellige's installation instructions for details.



Royaume du Maroc
Ministère du Tourisme, de l'Artisanat,
et de l'Economie Sociale et Solidaire
Maison de l'Artisan

