



COLEGIO OFICIAL DE INGENIEROS INDUSTRIALES  
 "LABORATORIO SEBASTIAN CARPI"

C.I.F.: Q - 4670001- I

AVENIDA DEL MAR, Nº 46 – 12003 CASTELLÓN

TEL: 964 208 583 – FAX: 964 723 141

www.laboratoriocarpi.com



## TEST REPORT

PETITIONER: ONIX CERAMICA, S.L.

ADDRESS: Avenida Real de Extremadura, 23

CITY: ONDA (Castellón)

TEST REPORT Nº: 57.414

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DATE OF TEST REPORT: 04/02/2019

DATE OF RECEIPT OF THE SAMPLE: 25/01/2019

DATE OF TESTS PERFORMANCE: 25/01 – 04/02/2019

NUMBER OF TILES SUPPLIED: 13 sheets (31 x 47 cm)

### DESCRIPTION OF THE SAMPLE:

Glass mosaic, 25 mm x 25 mm. Ref.:

-- **M. VITREO** --

Code laboratory: 34-19

### TEST PERFORMED:

- UNE-EN-ISO 10545-3 : DETERMINATION OF WATER ABSORPTION.
- UNE-EN-ISO 10545-11 : DETERMINATION OF CRAZING RESISTANCE. GLAZED TILES.
- UNE-EN-ISO 10545-13 : DETERMINATION OF CHEMICAL RESISTANCE.
- UNE-EN-ISO 10545-14 : DETERMINATION OF RESISTANCE TO STAINS.

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José A. Estibález Catalán  
 MANAGER

The samples and his description have been chosen by the petitioner.

The reported results relate only to the samples tested.

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The uncertainties have been evaluated according to recommendations of the document ISO/TAG5/WGE : June 95.

The expanded uncertainties indicated in this report are based on a standard uncertainty multiplied by a coverage factor k=2 wich a normal distribution provides a level of confidence of about 95 %.



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**DETERMINATION OF WATER ABSORPTION**

**DESCRIPTION OF THE SAMPLE.-**

Glass mosaic, 25 mm x 25 mm. Ref.:

-- **M. VITREO** --

Code laboratory: 34-19

**RESULTS.-** (Test performed after **UNE-EN-ISO 10545 Part 3:2018**)

\* Number of tiles by specimen: Ten

\* Water absorption for each specimen:

<b><u>Specimen</u></b>	<b><u>Water absorption (<math>E_v</math>) (%)</u></b>
1	0.1
2	0.1
3	0.1
4	0.1
5	0.1

\* Average water absorption of the sample: **0.1 %**

\* Measurement uncertainty:  **$U = \pm 0.1 \% \quad (k=2)$**

\* Average value uncertainty:  **$U = \pm 0.1 \% \quad (k=2)$**



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## DETERMINATION OF CRAZING RESISTANCE

**\* GLAZED TILES \***

### DESCRIPTION OF THE SAMPLE.-

Glass mosaic, 25 mm x 25 mm. Ref.:

-- **M. VITREO** --

Code laboratory: 34-19

RESULTS.- (Test performed after **UNE-EN-ISO 10545 Part 11:1997**)

\* Number of tiles tested: **Twenty five.**

\* Number of tiles showing crazing: **Not - one.**

\* Description of crazing: The tiles tested are free from crazes on the glazed surface.

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**DETERMINATION OF CHEMICAL RESISTANCE**

**DESCRIPTION OF THE SAMPLE.-**

Glass mosaic, 25 mm x 25 mm. Ref.:

-- **M. VITREO** --

Code laboratory: 34-19

**RESULTS.-** (Test performed after **UNE-EN-ISO 10545 Part 13:2017**)

\* Testing method: Contact with the test surface.

<b><u>Test solutions</u></b>	<b><u>Classification</u></b>			<b><u>Visual Changes</u></b>
	<b><u>Specimen n°</u></b>			
	<b><u>1</u></b>	<b><u>2</u></b>	<b><u>3</u></b>	
* <b><u>Household chemicals</u></b> - Ammonium Chloride (100 g/l) .....	<b>A</b>	<b>A</b>	<b>A</b>	No visible effects. Lines pencil removed
* <b><u>Swimming pool salts</u></b> - Sodium Hypochlorite (20 mg/l) .....	<b>A</b>	<b>A</b>	<b>A</b>	No visible effects. Lines pencil removed
* <b><u>Acids and Alkalis (Low concentrations)</u></b> - Hydrochloric Acid (3% v/v) .....	<b>LA</b>	<b>LA</b>	<b>LA</b>	No visible effects. Lines pencil removed
- Citric Acid (100 g/l) .....	<b>LA</b>	<b>LA</b>	<b>LA</b>	No visible effects. Lines pencil removed
- Potassium Hydroxide (30 g/l) .....	<b>LA</b>	<b>LA</b>	<b>LA</b>	No visible effects. Lines pencil removed
* <b><u>Acids and Alkalis (High concentrations)</u></b> - Hydrochloric Acid (18% v/v) .....	<b>HA</b>	<b>HA</b>	<b>HA</b>	No visible effects. Lines pencil removed
- Lactic Acid (5% v/v) .....	<b>HA</b>	<b>HA</b>	<b>HA</b>	No visible effects. Lines pencil removed
- Potassium Hydroxide (100 g/l) .....	<b>HA</b>	<b>HA</b>	<b>HA</b>	No visible effects. Lines pencil removed



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**DETERMINATION OF RESISTANCE TO STAINS**

DESCRIPTION OF THE SAMPLE.-

Glass mosaic, 25 mm x 25 mm. Ref.:

-- **M. VITREO** --

Code laboratory: 34-19

RESULTS.- (Test performed after **UNE-EN-ISO 10545 Part 14:2015**)

\* Number of test specimens used with each test solution: FIVE.

<b><u>Staining Agents</u></b>	<b><u>Cleaning Procedure</u></b>	<b><u>Class</u></b>	<b><u>Observations</u></b>
* <i>Stains having tracing action (Pastes)</i> - Green staining agent in light oil .....	- Running hot water for five minutes (Procedure A).	<b>5</b>	- Stain removed.
* <i>Stains having chemical / oxidizing action</i> - Iodine alcohol solution .....	- Running hot water for five minutes. (Procedure A).	<b>5</b>	- Stain removed.
* <i>Stains having filming action</i> - Olive oil .....	- Running hot water for five minutes. (Procedure A).	<b>5</b>	- Stain removed.

\* Observations: The chromium oxide used as green staining agent have a grain size less than 80 microns, being the 50 % (m/m) of theirs down on 3 microns.

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