



LABORATORIO CERAMICO SEBASTIAN CARPI
COLEGIO OFICIAL DE INGENIEROS INDUSTRIALES DE CASTELLÓN

C.I.F.: Q-46700014

AVENIDA DEL MAR, Nº 46 – 12003 CASTELLÓN

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www.laboratoriocarpi.com

TE REPORT

PETITIONER: VIDREPUR, S.A.
ADDRESS: Pol. Ind. Mijares, C/ Com
CITY: ALMAZORA (Castellón)
TEST REPORT Nº: 54.940
PAGE Nº: 1 / 9
DATE OF TEST REPORT: 16/02/2016
DATE OF RECEIPT OF THE SAMPLE: 03/02/2016
DATE OF TESTS PERFORMANCE: 03 - 12/02/2016
NUMBER OF TILES SUPPLIED: 2 m²

nº 3

DESCRIPTION OF THE SAMPLE:

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

Serie: 950

Code laboratory: 38-16

TEST PERFORMED:

- UNE-EN-ISO 10545-2 and ERRATUM: DET
- UNE-EN-ISO 10545-3 : DET
- UNE-EN-ISO 10545-7 : DET
- UNE-EN-ISO 10545-8: DET
- UNE-EN-ISO 10545-11 : DET
- UNE-EN-ISO 10545-13 : DET
- UNE-EN-ISO 10545-14 : DET

- DETERMINATION OF SURFACE QUALITY.
- DETERMINATION OF WATER ABSORPTION.
- DETERMINATION OF RESISTANCE TO SURFACE ABRASION.
- DETERMINATION OF LINEAR THERMAL EXPANSION.
- DETERMINATION OF CRAZING RESISTANCE. GLAZED TILES.
- DETERMINATION OF CHEMICAL RESISTANCE.
- DETERMINATION OF RESISTANCE TO STAINS.

JOSE ANTONIO
ESTIBALEZ|CATALAN

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 expanded uncertainties indicated in this report are based on a stated
level of confidence of about 95 %.

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... June 05
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Test report n°: 54.940
Page n° : 2 / 9
Petitioner: VIDREPUR
Date: 16/02/2016

DETERMINATION OF SURFACE QUALITY

DESCRIPTION OF THE SAMPLE.-

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

-- **Serie: 950** --

Code laboratory: 38-16

RESULTS.- (Test performed after UNE-EN 10545 Part 2 and Erratum:1998)

- * The number of tiles tested: **1 m²**.
- * The percentage of tiles without defects: **10**
- * Observations: The tiles tested are free from

defects.



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Test report: nº: 34.940

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Petitioner: VIDREPUR

Date: 16/02/2016

DETERMINATION OF WATER ABSORPTION

DESCRIPTION OF THE SAMPLE.-

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

-- Serie: 950 --

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RESULTS.- (Test performed after UNE-EN ISO 10545 Part 3:1997)

* Water absorption for each tile (Boiling method E_{10}^*):

| <u>Tile</u> | <u>Water absorption (E_{10})</u> (%) |
|-------------|--|
| 1 | 0.1 |
| 2 | 0.1 |
| 3 | 0.0 |
| 4 | 0.1 |
| 5 | 0.1 |

* Average water absorption of the sample: **0,1 %**

* Measurement uncertainty: **U = ± 0,1 % (k=2)**

* Average value uncertainty: **U = ± 0,1 % (k=2)**



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Test report nº: 34.040

Page 1 of 1

Petitioner: VIDREPOR

Date: 16/02/2016

DETERMINATION OF RESISTANCE TO SURFACE ABRASION

* GLAZED TILES *

DESCRIPTION OF THE SAMPLE

Glass mosaic, 25 mm x 25 mm, 6d.

-- Serie: 950 --

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RESULTS,- (Test performed after UNE-EN-ISO 10545 Part 7:1999)

* Classification: **Class 4**

* Abrasion stage at which visual failure occurred: **More than 12000 revolutions.**



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Test report nº: 54.940

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Península: VIDREPOR

Date: 16/02/2016

DETERMINATION OF LINEAR THERMAL EXPANSION

DESCRIPTION OF THE SAMPLE

Glass mosaic, 25 mm x 25 mm, 100 μ m

-- Serie: 950 --

--- Measurement: 40 μ m ---

RESULTS.- (Test performed after UNE-EN-ISO 10545 Part 8:2014)

| Specimen | Coefficient of linear thermal expansion (from 30 $^{\circ}$ to 100 $^{\circ}$ C) |
|----------|--|
| 1 | $8,7 \times 10^{-6}/^{\circ}\text{C}$ |
| 2 | $8,7 \times 10^{-6}/^{\circ}\text{C}$ |

* Measurement uncertainty: $U = \pm 0,3 \times 10^{-6}/^{\circ}\text{C}$ (k=2)

* Observations: The dimensions of the test specimens are: $P_1 = 49,01 \times 4,16 \times 5,60$ mm and $P_2 = 49,08 \times 4,00 \times 5,27$ mm.



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Test report nº: 54.940

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Petitioner: VIDREPLOR

Date: 16/02/2016

DETERMINATION OF CRAZING RESISTANCE

* GLAZED TILES *

DESCRIPTION OF THE SAMPLE:

Glass mosaic, 25 mm x 25 mm, Ref:

-- **Serie: 950** --

Manufacturer: Vidreplor

RESULTS: - (Test performed after UNE-EN ISO 10545 Part 13:1997).

* Number of tiles tested: **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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Test report n°: 54.940

Page n°: 7 / 9

Reference: VDR2PUR

Date: 16/02/2016

DETERMINATION OF CHEMICAL RESISTANCE

DESCRIPTION OF THE SAMPLE.

Glass mosaic, 25 mm x 25 mm. Ref:

-- Serie: 950 --

LABORATORIO CERÁMICO SEBASTIÁN GARPI

RESULTS. - (Test performed after UNE-EN 12899-10545 Part 13:1998)

* Number of test specimens used with each test condition: 7 x 6.

| <u>Test solutions</u> | <u>Classification</u> | <u>Visual Changes</u> |
|---|-----------------------|-----------------------|
| * <u>Household chemicals</u> - Ammonium Chloride | GA | No visible effects. |
| * <u>Swimming pool salts</u> - Sodium Hypochlorite | GA | No visible effects. |



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Test report nº: 54-910

Page: 07 / 11 / 9

Demanda: VIOKEPUR

Date: 16/02/2016

DETERMINATION OF RESISTANCE TO STAINS

DESCRIPTION OF THE SAMPLE:

Glass mosaic: 25 mm x 25 mm. Ref:

-- **Serie:** 950 --

C. I. O. Alcañiz, p. 18-16

RESULTS: (Test performed after UNE-EN ISO 10545 Part 14:1998)

* Number of test specimens used with each test condition: 2-02.

| <u>Staining Agents</u> | <u>Cleaning Procedure</u> | <u>Class</u> | <u>Observations</u> |
|---|--|--------------|---------------------|
| * <u>Stains having tanning action (Pastes)</u> - Green staining agent in light oil | Rinsing hot water for five minutes. (Procedure A) | 5 | Stain removed. |
| * <u>Stains having chemical / acidification</u> - Iodine alcohol solution: | Rinsing hot water for five minutes. (Procedure A) | 5 | Stain removed. |
| * <u>Stains having fatting action</u> - Olive oil | Rinsing hot water for five minutes. (Procedure A) | 5 | 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 them's down on 3 microns.



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Test report: 015-040
Page out: 9/9
Person: WIDREPER
Date: 16/02/2016

CONCLUSIONS

DESCRIPTION OF THE SAMPLE:

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

-- Serie: 950 --

Cose laboratoris: 38-16

CONCLUSIONS:

The results obtained in the test report accompanied the specifications of the Standard ISO 13006:2012 (Annex G) (Dry-Dressed ceramic tiles with low water absorption $K_1 \leq 0.5\%$, Group B1a).