

**MODENA CENTRO PROVE s.r.l.**

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C.C.I.A.A. Modena n. 228587 - Tribunale di Modena n° 2231 - C.F. e P. IVA n. 01592020364

MECCANICA

ECOLOGIA

CERAMICA

ALIMENTARE

Modena, 15/05/19

To **FLORIM CERAMICHE SPA**
VIA CANALETTO 24
41042 FIORANO MODENESE MO

Attn. **sig. Turrini**

| MATERIAL and/or SAMPLE to be tested | Denomination of the Sample | Client Reference – Your delivery | date |
|-------------------------------------|---|----------------------------------|------------|
| porcelain tiles | Serie MATIÈRES DE REX Articolo NUAGE MATTE Magnum spessore 6mm formato 60X120 cm marchio Rex | - | 18/04/2019 |
| | | | |

Here attached, you will receive the Test Report of Serial No. **20193416**/n, which shows the results of tests required.

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Director
Sant'Unione dr. Giuseppe



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LAB N°1018L

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

Signatory of EA, IAF and ILAC Mutual Recognition Agreements

TEST REPORT: 20193416/1

Modena, 15/05/19

CUSTOMER

**FLORIM CERAMICHE SPA - - VIA CANALETTO 24 - 41042 - FIORANO
MODENESE - MO**

MATERIAL and/o SAMPLE to be tested

porcelain tiles;

Denomination

Serie MATIÈRES DE REX Articolo NUAGE MATTE Magnum spessore 6mm
formato 60X120 cm marchio Rex;

Date of sample reception

18/04/2019;

Date of sample acceptance

18/04/2019;

Kind of test executed

Determination of modulus of rupture and breaking strenght

Referring standards

UNI EN ISO 10545-4:2014/EC 1-2015

Shifting from standards

No one

Equipment

Flexural test machine cod. MCP C152 - Gauge cod. MCP C145 - Metric band-
mill cod. MCP C56

Subcontracted phases

No one

Sampling made by

Customer

*The test results showing in this Report are only referred to the sample taken by our staff or supplied by the Customer. He commits himself to reproduce integrally this document. Partial reproduction is forbidden.
The times of retain of the samples was indicated in the offer related to the test report.*

Examiner

p.i. Bortolai Alberto

MODENA CENTRO PROVE

Ceramic Dept. Responsible
P.I. De Pasquale Roberto

MODENA CENTRO PROVE

Director
Sant'Unione dr. Giuseppe



DETERMINATION OF MODULUS OF RUPTURE AND BREAKING STRENGTH

Beginning date : 06/05/2019

Analysis ending date : 07/05/2019

SAMPLE : Ceramic tiles, marked « **Serie MATIÈRES DE REX Articolo NUAGE MATTE Magnum spessore 6mm formato 60X120 cm marchio Rex** »

The test has been performed applying a load on three points, with the central load to contact with the centre line of the does superior of the tile.

RESULTS

The test has been performed on entire samples

Width of the test specimen **b** 600 mm
 Dimension of tile **L** 1200 mm
 Diameter of rod **d** 20 mm
 Thickness of rubber **t** 5 mm
 Overlap of tile beyond the edge supports **l₁** 10 mm

| PARAMETER | Unit of measure | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|-------------------|------|------|------|------|------|------|------|
| Tile n° | | | | | | | | |
| Span between the support rods l₂ | mm | 1180 | 1180 | 1180 | 1180 | 1180 | 1180 | 1180 |
| Width of the test specimen b | mm | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| Minimum thickness of the specimen h | mm | 5,8 | 5,8 | 5,6 | 5,7 | 5,7 | 5,8 | 5,7 |
| Breaking load F | N | 696 | 675 | 641 | 686 | 667 | 685 | 678 |
| Breaking strength S | N | 1369 | 1328 | 1261 | 1349 | 1312 | 1347 | 1333 |
| Modulus of rupture R | N/mm ² | 61,0 | 59,2 | 60,3 | 62,3 | 60,6 | 60,1 | 61,6 |

Breaking load **F** average value (N) = 675
 Breaking strength **S** average value (N) = 1328
 Modulus of rupture **R** average value (N/mm²) = 60,7

REQUIREMENTS UNI EN 14411:2016

GROUP: Bla
 UNI EN 14411:2016 Annex: G

| | THICKNESS | REQUIREMENT |
|--------------------------|--------------------|-------------|
| BREAKING STRENGTH | Thickness ≥ 7,5 mm | > 1300 N |
| | Thickness < 7,5 mm | > 700 N |

| | | REQUIREMENT |
|----------------------------|------------------|------------------------|
| MODULUS OF RUPTURE* | Average value | > 35 N/mm ² |
| | Individual value | > 32 N/mm ² |

(*) Not applicable to ceramic tiles with breaking strenght > 3000 N

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|--|--|---|
| Examiner p.i. Bortolai Alberto | MODENA CENTRO PROVE Ceramic Dept. Responsible P.I. De Pasquale Roberto | MODENA CENTRO PROVE Director Sant'Unione dr. Giuseppe |
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