

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

Sede legale e Laboratori: 41123 Modena (Italy) - Via Sallustio, 78
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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 ESPRIT DE REX Articolo NEUTRAL GRIS Magnum spessore 6mm formato 120X120 cm marchio Rex	-	18/04/2019

Here attached, you will receive the Test Report of Serial No. **20193412**/n, which shows the results of tests required.

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Director
Sant'Unione dr. Giuseppe



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TEST REPORT: 20193412/1

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 ESPRIT DE REX Articolo NEUTRAL GRIS Magnum spessore 6mm
formato 120X120 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

Sant'Unione dr. Giuseppe
Director



DETERMINATION OF MODULUS OF RUPTURE AND BREAKING STRENGTH

Beginning date : 06/05/2019

Analysis ending date : 07/05/2019

SAMPLE : Ceramic tiles, marked « **Serie ESPRIT DE REX Articolo NEUTRAL GRIS Magnum spessore 6mm formato 120X120 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	1200	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							
Tile n°		1	2	3	4	5	6	7
Span between the support rods l₂	mm	1180	1180	1180	1180	1180	1180	1180
Width of the test specimen b	mm	1200	1200	1200	1200	1200	1200	1200
Minimum thickness of the specimen h	mm	5,6	5,6	5,7	5,6	5,7	5,5	5,7
Breaking load F	N	984	1032	1060	977	1051	934	1031
Breaking strength S	N	968	1015	1042	961	1033	918	1014
Modulus of rupture R	N/mm ²	46,3	48,5	48,1	46,0	47,7	45,5	46,8

Breaking load F average value (N)	=	1010
Breaking strength S average value (N)	=	993
Modulus of rupture R average value (N/mm ²)	=	47,0

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

Examiner p.i. Bortolai Alberto		MODENA CENTRO PROVE Director Sant'Unione dr. Giuseppe
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