



LAB N° 1170

TEST REPORT

**CERAMIC TILES - DETERMINATION OF RESISTANCE OF FORCE AND BENDING STRENGTH
UNI EN ISO 10545-4: 2014**

Test report n. 0160/2016 /1

Date of report: 01/22/2016

Customer: FLORIM CERAMICHE S.p.a.
Via Canaletto, 24
41042 FIORANO MODENESE (MO)

Requested on: 01/20/2016

Our ref.number: 16401

Execution place of tests: Scandiano (RE)

Description of the sample: "Ceramic tiles unglazed 60x60 cm
marked :Articolo White TU naturale serie Buildtech superficie UGL
formato 60x60 cm spessore 1cm marchio Floor Gres"

Sampling: carried out by the customer

Receipt date of samples: 01/21/2016

Execution date of tests: start: 01/21/2016 end: 01/22/2016

Test specification: UNI EN ISO 10545-4:2014
Determination of resistance to bending and breaking force

Warnings: *This test report can not be reproduced in part, without our written consent.
The reported results relate only to the samples tested.
The information included in quotation marks was provided by the customer.*





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Principle: Determination of the breaking load, breaking strength and modulus of rupture of tile by applying a force at a definite rate to centre of the tile, the point of application being in contact with the proper surface of the tile.

Used method: see principle

N. of samples tested: 7

Experimental conditions: Roller diameter: $d = 20$ mm
Thickness of the coating roller: $T = 5$ mm
Distance between the support point and the edge: $l_1 = 10$ mm
Distance between the points of support: $l_2 = 577$ mm
Width of the sample: $b = 597$ mm

Test results: **Breaking load F**

n. sample	F [N]
1	3794
2	4051
3	3750
4	4039
5	3801
6	3793
7	3969

Average breaking load: $F_m[N] = 3885$

Breaking strength S

n. sample	S[N]
1	3666
2	3915
3	3624
4	3903
5	3674
6	3665
7	3836

Breaking strength average: $S_m[N] = 3755$





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Test results: **Modulus of rupture R**

n. sample	R[N/mm ²]
1	62,2
2	66,5
3	62,9
4	66,3
5	63,7
6	63,6
7	65,1

Average modulus of rupture: $R_m[N/mm^2]=$ 64,3

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THE DIRECTOR
(M. Simioli)