

**Testing, Experimentation and Quality Control Laboratory**

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**TEST REPORT n. 3846/2023/I****CERAMIC TILES****UNI EN ISO 10545-4:2019****DETERMINATION OF MODULUS OF RUPTURE AND BREAKING STRENGTH**

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Date of report: 02/08/2023

Customer: **CERAMICA DEL CONCA S.p.A.**

Via Croce, 8  
47832 SAN CLEMENTE (RN)

Requested on: 11/07/2023

Our ref.number: 35513

Execution place of tests: Scandiano (RE)

Description of the sample: "Ceramic tiles 600x1200x20 mm  
marked: GRES PORCELLANATO SPESSORATO 60x120 20mm"

Sampling: carried out by the customer

Receipt date of samples: 18/07/2023

Execution date of tests: start: 30/07/2023 end: 31/07/2023

Test specification: UNI EN ISO 10545-4:2019  
Ceramic tiles - Determination of modulus of rupture and breaking strength

Warnings: *This test report may not be reproduced in part without our written approval.  
The results reported only refer to the samples tested, as received, and are only valid under the conditions in which the work was carried out.  
The information enclosed in inverted commas was provided by the customer and the laboratory accepts no liability for it.*

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**TEST REPORT n. 3846/2023/I****CERAMIC TILES****UNI EN ISO 10545-4:2019****DETERMINATION OF MODULUS OF RUPTURE AND BREAKING STRENGTH**

*Principle:* determination of the breaking load, breaking strength and modulus of rupture of tile by applying a force at a specified 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 specimens tested:* 3

*Preparation of the test:* the test was performed on whole tiles  
number of tiles: 3  
n. of specimens tested for each tile: 1  
length of the specimens:  $l = 1195$  mm  
width of the specimens:  $B = 596$  mm

*Experimental conditions:* rod diameter:  $d = 20$  mm  
thickness of rubber:  $t = 5$  mm  
overlap of tile beyond the edge supports:  $l_1 = 10$  mm  
span between the support rods:  $l_2 = 1175$  mm  
width of the sample:  $B = 596$  mm

**Test results: Breaking load F**

Specimens	F [N]
1	6318
2	6081
3	6010

Mean value F [N] 6136

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**TEST REPORT n. 3846/2023/I****CERAMIC TILES****UNI EN ISO 10545-4:2019****DETERMINATION OF MODULUS OF RUPTURE AND BREAKING STRENGTH**Test results: **Breaking strength S**

Specimens	S [N]
1	12456
2	11989
3	11848

Mean value S [N] 12098Test results: **Modulus of rupture R**

Specimens	R[N/mm <sup>2</sup> ]
1	54,0
2	52,0
3	51,4

Mean value R [N/mm<sup>2</sup>] 52,5

The Director  
Giulia Gaido