



1218M4694

Tramelan Sable 600x600x20 coloré dans la masse - rectifié - R11 C - V2 - 0.72 m²/cart. - 43.88 kg/m² - 21.6m²/pal.

**TEST REPORT n. 0070/2021/I****CERAMIC TILES - DETERMINATION OF MODULUS OF RUPTURE AND BREAKING STRENGTH
UNI EN ISO 10545-4:2019**

Date of report: 01/07/2021

Customer:

40017 S.Matteo della Decima (BO)

Requested on: 12/16/2020

Our ref.number: 29203

Execution place of tests: Scandiano (RE)

Description of the sample: "Ceramic tiles 60x60 cm
marked: (NEW) ULTRA - AVRY SP 20 MM"

Sampling: carried out by the customer

Receipt date of samples: 12/18/2020

Execution date of tests: start: 12/22/2020 end: 12/23/2020

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

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

Preparation of the test: The test was performed on whole tiles
 Number of tiles: 7
 N. of samples tested for each tile: 1
 Length of the samples: l = 599 mm
 Width of the samples: B = 599 mm

Experimental conditions: Roller diameter: d = 20 mm
 Thickness of the coating roller: t = 5 mm
 Distance between the support point and the edge: l₁ = 10 mm
 Distance between the points of support: l₂ = 579 mm
 Width of the sample: B = 599 mm

Test results:

Breaking load F

n. sample	F [N]
1	11684
2	12067
3	11432
4	12103
5	12342
6	12427
7	12439

Average breaking load: F_m[N]= 12071



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Test results:

Breaking strength S

n. sample	S[N]
1	11294
2	11664
3	11050
4	11699
5	11930
6	12012
7	12023

Breaking strength average: Sm[N] = 11668

Modulus of rupture R

n. sample	R[N/mm ²]
1	48,4
2	50,6
3	47,9
4	48,1
5	49,1
6	48,4
7	49,4

Average modulus of rupture: Rm[N/mm²] = 48,8