

TEST REPORT No. 238

MATERIAL'S COMMERCIAL NAME:
PIETRA DI CARDOSO e STONETHICA-CARDOSO

CLIENT: PETRIS S.r.l.

IMM CARRARA S.P.A - STONELAB
TECHNOLOGICAL LABORATORY FOR TESTING ON STONES

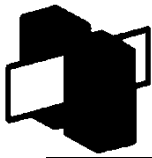


PERFORMED TESTS:

- 1. Comparative weighings between Pietra di Cardoso and Stonethica-Cardoso.**

The Test Report No. 238 consists of 2 pages including this one.

Technological Laboratory Dott.Geol. Marco Mazzoni		DATE: February 27 th , 2018
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STONELAB by IMM

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(RESULTS SUMMARY TABLES)

By request of *PETRIS S.r.l.*, comparative weighings on tiles of nominal dimensions equal to 210x150x25mm of both “Pietra di Cardoso” and of the stone based product named by *PETRIS S.r.l.* “STONETHICA-CARDOSO”.

The aim of these weighings is to quantify the weight (per product unit) of organic compounds (bonding agent and reinforcing net) present into the the product “STONETHICA-CARDOSO”.

The weighing procedure consists of the following phases: 1) determination of the exact dimensions for each single specimen, both of “Pietra di Cardoso” and “STONETHICA-CARDOSO”. It has been determined also the actual thickness of the product “STONETHICA-CARDOSO” without the reinforcing net applied on the specimens’ backside. 2) It has been calculated the apparent density of the “Pietra di Cardoso” from the dimensions and the weight of each specimens. This data has been used for both products. 3) For each single “STONETHICA-CARDOSO” specimen have been determined: product’s actual weight and theoretical weight (length x width x thickness (without reinforcing net.)) of a specimen made of only “Pietra di Cardoso”.

The difference between the actual “STONETHICA-CARDOSO” specimens’ weight and the theoretical one determine the weight of the organic compounds’ weight (bonding agents and reinforcing net) used for the product.

Product	Dimensions (mm)	Actual stone thickness (mm)	Actual weight (g)	App.nt Density (g/cm ³)	P.Cardoso Theoretical weight for actual Thk (g)	Organic compounds weightPeso (g)
P. di Cardoso Specimen 1	210,0x148,0x27,2	27.2	2268,87	2,68	2268,87	0,00
P. di Cardoso Specimen 2	210,2x148,1x27,2	27.2	2271,81	2,68	2271,81	0,00
P. di Cardoso Specimen 3	211,1x148,2x27,2	27.2	2273,44	2,67	2273,44	0,00
P. di Cardoso Specimen 4	210,1x148,0x27,2	27.2	2260,47	2,67	2260,47	0,00
Stonethica Specimen 1	210,0x146,2x26,9	26.4	2187,96	2,65	2175,36	12,60
Stonethica Specimen 2	210,9x147,5x26,9	26.4	2234,07	2,67	2203,37	30,70
Stonethica Specimen 3	210,2x146,9x26,7	26.2	2181,4	2,65	2161,39	20,01

The organic compounds percentage (resin+net) present into the three Stonethica specimens ranges between 0.58 % and 1.39 % with an average value equal to 0.97 %.

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