



MODENA CENTRO PROVE s.r.l.
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C.C.I.A.A. Modena n. 228537 - Tribunale di Modena n° 2231 - C.F. e P. IVA n. 04592020364

DETERMINATION OF THERMAL SHOCK RESISTANCE

Beginning date : 12/02/2018

Analysis ending date : 19/03/2018

SAMPLE : Natural stone sample marked " PERLATO DI SICILIA "

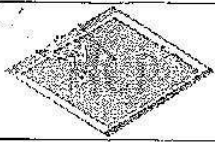
SPECIMEN : Test specimens size mm 200X200X20

The test was performed placing test samples in airy oven at 105 °C for 18 hours, then soaked in water for 6 hours; this method happened 20 times.

RESULTS

Sample N°	Δm %	Visual Changes
1	0.0	Slight yellowing of test specimen
2	0.0	Slight yellowing of test specimen
3	0.0	Slight yellowing of test specimen
4	0.0	Slight yellowing of test specimen
5	0.0	Slight yellowing of test specimen
6	0.0	Slight yellowing of test specimen
7	0.0	Slight yellowing of test specimen
Average	0.0	

<p>Examiner <i>Elisabetta Sola</i> Dr ssa Elisabetta Sola</p>	<p>MODENA CENTRO PROVE <i>Roberto Pasquale</i> Ceramic Dept. Responsible P.L. De Pasquale Roberto</p>	<p>MODENA CENTRO PROVE <i>Giuseppe Sant'Onofrio</i> Director Sant'Onofrio dr. Giuseppe</p>
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MECCANICA

ECOLOGIA

CERAMICA

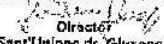
ALIMENTARE

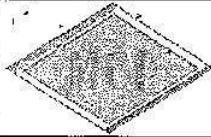
Modena, 19/03/18

MATERIAL and/or SAMPLE to be tested	Denomination of the Sample	Client Reference – Your delivery	date
MARBLE	PERLATO DI SICILIA	MAIL SIG.RA MARISA	01/02/2018

Here attached, you will receive the Test Report of Serial No. **20181465/n**, which shows the results of tests required.

MODENA CENTRO PROVE

MODENA CENTRO PROVE

Director
Sant'Antonio dr. Gluscapa



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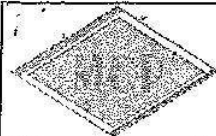
TEST REPORT: 20181465/1

Modena, 19/03/18

MATERIAL and/o SAMPLE to be tested	MARBLE;
Denomination	PERLATO DI SICILIA;
Date of sample reception	9/2/2018;
Kind of test executed	Determination of Compressive Strength Resistance
Referring standards	UNI EN 1926.2007
Shifting from standards	None
Equipment	Materials testing machines cod. MCP M05
Calibration	DAKKS N80007 of 16/10/2017
Subcontracted phases	None
Sampling made by	Customer

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Examiner Dr. ssa Elisabetta Sola	MODENA CENTRO PROVE Ceramic Dept. Responsible P.L. De Pasquale Roberto	MODENA CENTRO PROVE Director Sant'Ursola dr. Giuseppe
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DETERMINATION OF COMPRESSIVE STRENGTH RESISTANCE

Beginning date : 13/02/2018

Analysis ending date : 14/02/2018

SAMPLE : Natural stone sample marked " PERLATO DI SICILIA MARBLE "**SPECIMEN** : Test specimens size mm 50X50X50

After mechanical preparation, the specimens are placed in the centre on the plan of the test machine; a uniformly distributed load is applied and increased in continuous way until to break of the piece.

The load is applied evenly at a constant rate of increase of stress (1 ± 0.5 MPa/s).

RESULTS

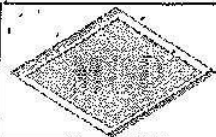
Sample n°	1	2	3	4	5	6
Failure Load <i>F</i> (kN)	353	293	477	320	439	323
Compressive Strength <i>R</i> (MPa)	133	109	178	124	166	125

• Compressive strength *R* average : 139 MPa

Examiner
Elisabetta Sola
Dr. ssa Elisabetta Sola

MODENA CENTRO PROVE
Roberto De Pasquale
Ceramic Dept. Responsible
P.L. De Pasquale Roberto

MODENA CENTRO PROVE
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Director
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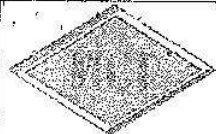
TEST REPORT: 20181465/2

Modena, 19/03/18

MATERIAL and/o SAMPLE to be tested	MARBLE;
Denomination	PERLATO DI SICILIA;
Date of sample reception	9/2/2018;
Kind of test executed	Determination of Apparent Density and Open Porosity
Referring standards	UNI EN 1936:2007
Shifting from standards	No one
Equipment	Forced ventilation stove cod. C108 - Draught gauge cod. C128 - Scales cod. MCP A123
Calibration	C108: LAT 273-SE-17 of 23/05/2017 - C128: RT 04 of 18/12/2017 - A123: LAT 352B-16 of 28/11/2016
Subcontracted phases	No one
Sampling made by	Customer

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DETERMINATION OF APPARENT DENSITY AND OPEN POROSITY

Beginning date : 12/02/2018

Analysis ending date : 15/02/2018

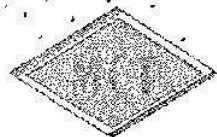
SAMPLE : Natural stone sample marked " PERLATO DI SICILIA MARBLE "
SPECIMEN : Test specimens size mm 50X50X30

After drying to constant mass, the apparent density ρ_b and the open porosity ρ_b is determined by water absorption under vacuum and weighing the specimens in water.

RESULTS

Sample N°	ρ_b %	ρ_b kg/m ³
1	0.18	2658
2	0.20	2671
3	0.18	2671
4	0.21	2658
5	0.18	2658
6	0.23	2656
Average	0.20	2662

<p>Examiner <i>Elisabetta Sola</i> Dr.ssa Elisabetta Sola</p>	<p>MODENA CENTRO PROVE <i>De Pasquale Roberto</i> Ceramic Dept. Responsible P.I. De Pasquale Roberto</p>	<p>MODENA CENTRO PROVE <i>De Pasquale Roberto</i> Director Sant'Unione di Glasogge</p>
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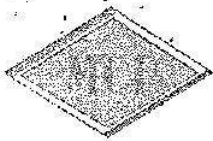
RAPPORTO di PROVA : 20181465/3

Modena, 19/03/18

MATERIALE e/o CAMPIONE in prova	MARBLE;
Denominazione	PERLATO DI SICILIA;
Data di ricevimento campione	9/2/2018;
Data Accettazione Campione	5/3/2018;
Tipo di Prova effettuato	Determination of Water Absorption AT Atmospheric Pressure
Norma/Metodo di riferimento	UNI EN 13755:2008
Scostamenti dalla Norma/Metodo	No one
Strumentazione utilizzata	Stufa Cod. C108 - Bilancia A123
Taratura	C108: LAT 213-se-16 of 05-05-2016; A123: LAT 094 N 352B-16 of 28-11-2016
Fasi subappaltate	No one
Campionamento a cura di	Customer

I risultati delle prove riportati nel presente Rapporto di Prova si riferiscono unicamente al campione prelevato dal nostro personale e/o conferito dal Committente; questi si impegna a riprodurre integralmente questo documento. E' vietata ogni forma di riproduzione parziale. I tempi di conservazione dei campioni sono indicati sull'offerta o contratto a cui il presente Rapporto di Prova fa riferimento.

Examiner Dr.ssa Elisabetta Sola	MODENA CENTRO PROVE Corensic Dept. Responsible P.I. De Pasquale Roberto	MODENA CENTRO PROVE Director Sant'Unione dr. Giuseppe
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DETERMINATION OF WATER ABSORPTION AT ATMOSPHERIC PRESSURE

Beginning date : 12/02/2018

Analysis ending date : 15/02/2018

SAMPLE : Natural stone marked « PERLATO DI SICILIA MARBLE »

SPECIMEN : Test specimens size mm 50X50X30

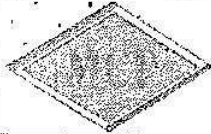
After drying, each sample until constant weight, every specimen has been immersed in water at atmospheric pressure; after a fixed time the amount of water soaked up has been measured.

RESULTS

Sample N°	1	2	3	4	5	6
A _s = Water Absorption %	0.07	0.07	0.05	0.09	0.06	0.08

- Water Absorption A_b % average : 0.07

<p>Examiner <i>Elisabetta Sola</i> Dr.ssa Elisabetta Sola</p>	<p>MODENA CENTRO PROVE <i>Roberto Pasquale</i> Ceramic Dept. Responsible P.I. Dr Pasquale Roberto</p>	<p>MODENA CENTRO PROVE <i>Giuseppe Sant'Unione</i> Director Sant'Unione dr. Giuseppe</p>
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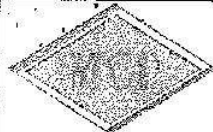
TEST REPORT: 20181465/4

Modena, 19/03/18

MATERIAL and/o SAMPLE to be tested	MARBLE;
Denomination	PERLATO DI SICILIA;
Date of sample reception	9/2/2018;
Kind of test executed	Determination of Flexion Resistance under concentrated load
Referring standards	UNI EN 12372:2007
Shifting from standards	No one
Equipment	Flexural test machine cod. MCP C93 - Gauge cod. MCP C146
Calibration	C93: Cert. Accredia n° 1312371FSE of 25/11/2013 - C146: LAT N° 110 17-73-001 of 25/01/2017
Subcontracted phases	No one
Sampling made by	Customer

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DETERMINATION OF FLEXION RESISTANCE UNDER CONCENTRATED LOAD

Beginning date : 12/02/2018

Analysis ending date : 14/02/2018

SAMPLE : Natural stone sample marked " PERLATO DI SICILIA MARBLE "

SPECIMEN : Test specimens size 180X50X30 mm

The test was performed applied a load on 3 points, with the central load in connection with the centre line of the upper side of test specimens. Breaking load has to be applied at a uniform speed of 0.30 Mpa/s.

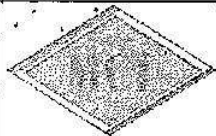
RESULTS

Parameter	Unit of measure											
		1	2	3	4	5	6	7	8	9	10	
Tile n°												
Breaking Load F	N	2520	2795	2117	2227	2092	2406	2311	2706	2485	2317	
Flexion Resistance δ	MPa	14.2	15.8	11.9	12.5	11.8	13.5	13.0	15.5	14.0	13.0	

- Flexion Resistance δ average MPa : 13.5

P.S. : Natural stone have no anisotropy planes such as bedding planes, foliations....and any other discontinuity surfaces.

Examiner Dr.ssa Elisabetta Sola	MODENA CENTRO PROVE Ceramic Dept. Responsible P.I. De Pasquale Roberto	MODENA CENTRO PROVE Director Sant'Ubaldo di Giuseppe
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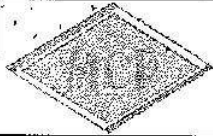
TEST REPORT: 20181465/5

Modena, 18/03/18

MATERIAL and/o SAMPLE to be tested	MARBLE;
Denomination	PERLATO DI SICILIA;
Date of sample reception	9/2/2018;
Kind of test executed	Determination of Abrasion Resistance
Referring standards	UNI EN 14157:2005
Shifting from standards	None
Equipment	Abrasion tester cod. MCP C71
Calibration	\\
Subcontracted phases	None
Sampling made by	Customer

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DETERMINATION OF ABRASION RESISTANCE

Beginning date : 12/02/2018

Analysis ending date : 14/02/2018

SAMPLE : Natural stone sample marked " PERLATO DI SICILIA MARBLE "
SPECIMEN : Test specimens size mm 140X140X20

The test was performed measuring the length of the grooves produced in the proper surface by means of a rotating disc and with the use of abrasive material.

RESULTS

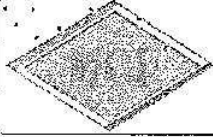
Sample N°	Groove length (mm)
1	20.0
2	20.3
3	20.0
4	19.9
5	19.8
6	19.7
Average	20.0

Examiner

Elisabetta Sola
Dr.ssa Elisabetta Sola

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Paolo Venturi
Ceramic Dept. Responsabile
P.I. De Pasquale Roberto

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TEST REPORT: 20181465/6

Modena, 19/03/18

MATERIAL and/o SAMPLE to be tested	MARBLE;
Denomination	PERLATO DI SICILIA;
Date of sample reception	9/2/2018;
Kind of test executed	Determination of Thermal Shock Resistance
Referring standards	UNI EN 14066:2004
Shifting from standards	Modulus of elasticity not calculated
Equipment	Forced ventilation stove cod. MCP C43
Calibration	C43: LAT 011 272-SE-17 of 23/05/2017
Subcontracted phases	None
Sampling made by	Customer

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