



MODENA CENTRO PROVE s.r.l.

Sede legale e Laboratori: 41123 Modena (Italy) - Via Sallustio, 78
Tel. 059 822417 r.a. - Fax 059380281 - e-mail : info@modenacentroprove.it - www.modenacentroprove.com
C.C.I.A.A. Modena n. 228587 - Tribunale di Modena n° 2231 - C.F. e P. IVA n. 01592020364

MECCANICA

ECOLOGIA

CERAMICA

ALIMENTARE



Certificato n°
50 100 4582



Diploma
IWR/IT n°
30438

Inserito
nell'elenco della
Regione Emilia
Romagna per
autocontrolli
alimentari su
aceti, vini, mosti
e patate

Notifica UE
n°01599 all'attività
di certificazione CE,
ai sensi della
direttiva
89/106/CE, su
piastrelle di ceramica
e relativi adesivi di
posa

Riconosciuto dal
Ministero della
Sanità per le
analisi
sull'amianto



Socio



Membro



Socio

Unione Industriali
Modena



Iscritto

ASSOCIATO



ASSOCIATED

Modena, 17/07/12

To **FLORIM CERAMICHE SPA**
VIA CANALETTO 24
41042 FIORANO MODENESE MO

Attn. **DAVIDE TURRINI**

MATERIAL and/or SAMPLE to be tested : UNGLAZED CERAMIC TILES;
Denomination of the Sample : SERIE REVERSE MARCHIO FLOOR GRES;

Client Reference: Your delivery MAIL

date:

Here attached, you will receive the Test Report of Serial No. **20123167/n**, which shows the results of tests required.

MODENA CENTRO PROVE

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Director
Sant'Unione dr. Giuseppe



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TEST REPORT: 20123167/1

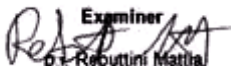
Modena, 17/07/12

CUSTOMER	FLORIM CERAMICHE SPA - - VIA CANALETTO 24 - 41042 - FIORANO MODENESE - MO
MATERIAL and/o SAMPLE to be tested	UNGLAZED CERAMIC TILES;
Denomination	SERIE REVERSE MARCHIO FLOOR GRES;
Date of sample reception	06/07/2012;
Kind of test executed	Determination of the Anti-Slip characteristics
Referring standards	DIN 51130:2004
Shifting from standards	None
Equipment	Scivolosimetro (misuratore del grado critico di inclinazione) cod. MCP C23
Calibration	Taratura n. 06 del 28/04/2012
Subcontracted phases	None
Sampling made by	Customer

*The test results showing in this Report are only referred to the sample taken by our staff or supplied by the Customer. He commits himself to reproduce integrally this document. Partial reproduction is forbidden.
The times of retain of the samples was indicated in the offer related to the test report.*

Examiner


P.I. Fili Thomas

Examiner

P.I. Rebottini Matia

MODENA CENTRO PROVE

Ceramic Dept. Responsible
P.I. De Pasquale Roberto

MODENA CENTRO PROVE

Director
Sant'Unione dr. Giuseppe

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DETERMINATION OF THE ANTI-SLIP CHARACTERISTICS

Beginning date : 10/07/2012

Analysis ending date : 12/07/2012

SAMPLE : Ceramic tiles, marked « DIN

The test regards the working areas with a high slipping risk: the procedure foresees that a person taking part in the test walks on an inclined plane which is floored with the tested tiles and greased an oil whose viscosity is SAE 10 W 30. During the execution of the test it is determined if the tested material may be properly laid down in specific work environments.

There is an average inclination which determines the insecurity of the person walking on the inclined plane and causes the classification of the tested tiles in one of five groups used to determine the sliding resistance.

RESULTS

- Mean inclination angle : 14,9°
- Classification : R 10

CLASSIFICATION

Mean Inclination Angle	Group
6° ÷ 10°	R 9
10° ÷ 19°	R 10
19° ÷ 27°	R 11
27° ÷ 35°	R 12
> 35°	R 13

Note : The group classification give the parameter for determine the sliding resistance: the group R 9 is less anti-slip, the group R 13 as the maximum effectiveness anti-slip.

Examiner
P.I. Fili Thomas**Examiner**

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TEST REPORT: 20123167/2

Modena, 17/07/12

CUSTOMER	FLORIM CERAMICHE SPA - - VIA CANALETTO 24 - 41042 - FIORANO MODENESE - MO
MATERIAL and/o SAMPLE to be tested	UNGLAZED CERAMIC TILES;
Denomination	SERIE REVERSE MARCHIO FLOOR GRES;
Date of sample reception	06/07/2012;
Kind of test executed	Determination of Slipperiness
Referring standards	DIN 51097:1992
Shifting from standards	None
Equipment	Scivolosimetro (misuratore del grado critico di inclinazione) cod. MCP C23
Calibration	Taratura n. 06 del 28/04/2012
Subcontracted phases	None
Sampling made by	Customer

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Examiner
P.I. Fili Thomas**Examiner**

P.I. Rebutini Matia**MODENA CENTRO PROVE**

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DETERMINATION OF SLIPPERINESS

Beginning date : 10/07/2012

Analysis ending date : 12/07/2012

SAMPLE : Ceramic tiles, marked «SERIE REVERSE MARCHIO FLOOR GRES »

A person walks backwards and forwards barefoot across the tiles to be tested, the inclination of which is increased by about 1° per second; the angle of inclination at which the person is no longer in conditions of safety is defined as the slip angle. The surface is wet continuously with a solution (1 g/l of wetting agent + water).

RESULTS

- Sample dimensions (length, width) : 1x 0.5 (m)
- Width of joints : 5 (mm)
- Groutig substance : mortar
- D of profiles : none

- SLIP ANGLE : 18,8°
- CLASSIFICATION : A+B

CLASSIFICATION

Total Average Values	Group Classification
< 12	0
≥ 12°	A
≥ 18°	B
≥ 24°	C

Examiner
P.I. Fili Thomas**Examiner**

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TEST REPORT: 20123167/3

Modena, 17/07/12

CUSTOMER	FLORIM CERAMICHE SPA - - VIA CANALETTO 24 - 41042 - FIORANO MODENESE - MO
MATERIAL and/o SAMPLE to be tested	UNGLAZED CERAMIC TILES;
Denomination	SERIE REVERSE MARCHIO FLOOR GRES;
Date of sample reception	06/07/2012;
Kind of test executed	Determination of Static Coefficient of Friction
Referring standards	ASTM C 1028-07
Shifting from standards	None
Equipment	Pull Meter cod. MCP C19
Calibration	Certificato di taratura n°111288FRI del 21/12/2011
Subcontracted phases	None
Sampling made by	Customer

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Examiner
Roberto Mattia
P. Rebottini Mattia

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Giuseppe Sant'Unione
Director
Sant'Unione dr. Giuseppe



DETERMINATION OF COEFFICIENT OF FRICTION

Beginning date : 09/07/2012

Analysis ending date : 09/07/2012

SAMPLE : Ceramic tiles, marked « SERIE REVERSE MARCHIO FLOOR GRES »

The test has been carried out using the instrument PULL METER, meter of the coefficient of static friction between a sliding element and the surface of test.

A block of wood with a 3" X 3" X1.8" section of standard neolite cement liner attached was placed on the surface to be tested. A weight was placed on the block of wood. Using a dynamometer, the force in pounds required to cause the test assembly to slip parallel to the test surface was measured.

Four measurements were taken on each of three test surfaces, each measurement perpendicular to the previous one. The twelve measurements thus obtained were averaged to obtain the static coefficient of friction for each test conditions.

OPERATING CONDITION

- Loaded junior clerk to the sliding element: 22,4 Kg
- Neolite like material to contact with the test surface

Through a dynamometer it comes measured the horizontal force demanded in order to move the Pull Meter on the surface head; It come executed four measures for everyone of three pieces, everyone perpendicular to the previous one.

RESULTS

Test Condition	N°	N	E	S	W	Average (Kg)	I.S.C. of Friction (*)
Dry Neolite	1	18,74	17,68	17,89	17,31		
Dry Neolite	2	17,15	18,77	18,63	17,71		
Dry Neolite	3	17,63	17,81	18,55	18,71	18,05	0,82
Wet Neolite	1	14,82	14,14	12,27	14,58		
Wet Neolite	2	14,15	14,73	14,35	14,42		
Wet Neolite	3	14,72	14,22	14,37	14,61	14,28	0,66

(*) : neolite correction factor applied

REFERENCE VALUES

The Ceramic Tile Institute identifies tile in the following 3 categories:

1. Anti-slip : ≥ 0.60
2. Conditionally Slip resistant : $0.50 \div 0.60$
3. Questionable : ≤ 0.50

Examiner
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