

**MODENA CENTRO PROVE s.r.l.**

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C.C.I.A.A. Modena n. 228587 - Tribunale di Modena n° 2231 - C.F. e P. IVA n. 01592020364

**TEST REPORT: 20123166/3**

Modena, 17/07/12

<b>CUSTOMER</b>	<b>FLORIM CERAMICHE SPA - - VIA CANALETTO 24 - 41042 - FIORANO MODENESE - MO</b>
<b>MATERIAL and/o SAMPLE to be tested</b>	UNGLAZED CERAMIC TILES;
<b>Denomination</b>	SERIE SELECTION OAK MARCHIO REX ARTICOLO WHITE GRIP;
<b>Date of sample reception</b>	06/07/2012;
<b>Kind of test executed</b>	Determination of Static Coefficient of Friction
<b>Referring standards</b>	ASTM C 1028-07
<b>Shifting from standards</b>	None
<b>Equipment</b>	Pull Meter cod. MCP C19
<b>Calibration</b>	Certificato di taratura n°111288FRI del 21/12/2011
<b>Subcontracted phases</b>	None
<b>Sampling made by</b>	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  
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*Giuseppe Sant'Unione*  
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## DETERMINATION OF COEFFICIENT OF FRICTION

Beginning date : 10/07/2012

Analysis ending date : 12/07/2012

**SAMPLE** : Ceramic tiles, marked « SERIE SELECTION OAK MARCHIO REX ARTICOLO WHITE GRIP »

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	20,82	21,73	20,63	20,15		
Dry Neolite	2	20,65	21,03	20,75	20,80		
Dry Neolite	3	20,61	20,77	20,51	20,48	20,74	<b>0,94</b>
Wet Neolite	1	20,16	20,21	20,07	20,21		
Wet Neolite	2	20,31	20,45	20,09	20,17		
Wet Neolite	3	20,05	20,13	20,18	20,21	20,19	<b>0,92</b>

(\*) : neolite correction factor applied

### REFERENCE VALUES

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

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

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