

Bologna, 27/03/06

Test report Nr° 3699/06

concerning ceramic tiles

Requested by:	FLORIM CERAMICHE S.p.A. Via Canaletto, 24 – 41042 FIORANO (MO)
On (date):	13/03/06
For the sample marked:	Glazed ceramic tiles 60,7 x 60,7 x 1,2 cm marked "Brand REX – Serie MATOUCHE – Colore MATOUCHE ELEPHANT IVOIRE – Tono B45 60x60".

ASTM C 1028-96 - Determination of static coefficient of friction

This test method covers the measurement of static slip resistance of ceramic tile or other like surfaces under both wet and dry conditions while utilizing Neolite heel assemblies.

PROCEDURE:

Slider material:	Neolite
Load applied to slider (Kg):	22,7

Results

Test condition of the surface	Average coefficient of friction:(μ)
Dry – as received	0,71
Dry – after cleaning	0,72
Wet (saturated with distilled water) – as received	0,60
Wet (saturated with distilled water) – after cleaning	0,61

Prof. Ing. Giorgio Timetini
Director
CENTRO CERAMICO
BOLOGNA

The results reported relate only to the samples tested. No responsibility is taken for the accuracy of the sampling unless it is done under our own supervision. The reproduction of this test report is only authorized in the form of a complete photographic facsimile. Our written approval is necessary for any partial reproduction. This test report consists of 1 page, this cover included.



Consorzio universitario per la gestione del
«Centro di ricerca e sperimentazione per
l'industria ceramica»
D.P.R. 10-4-1976 n. 806
(G.U. 20-12-1978 n. 353)

Laboratorio autorizzato ad effettuare il
servizio di rilevamento dell'inquinamento
atmosferico.
Decreto MINISTERO SANITÀ 10-8-1974
(G.U. 14-9-1974 n. 240)

Laboratorio iscritto nell'albo dei «Laboratori Esterni
Pubblici e Privati Altamente Qualificati».
Decreto MINISTERO RICERCA SCIENTIFICA 6-6-1983
(G.U. 6-7-1983 n. 183)

Membro ASTM
American Society for
Testing and Materials.



PRODUCT TESTING SERVICE

100 Clemson Research Blvd. • Anderson, SC 29625 • Tel (864) 646-TILE • Fax (864) 646-2821
TCNA TEST REPORT NUMBER: TCNA-202-06 PAGE: 1 OF 1

TEST REQUESTED BY: Florim Ceramiche SpA
Attn: Allesandro Villa
Via Canaletto 24
41042 Fiorano (MO)
Italy

TEST SUBJECT MATERIAL: Identified by client as: Rex – Matouche Cuir Charbon 60 x 60

TEST DATE: 10/5/06

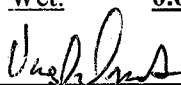
TEST PROCEDURE: ASTM C1028: "Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method"
-A Chatillon DFIS 100 digital force gauge was used to measure each pull in pounds-force.
-A 3 x 3 x 1/8 inch piece of Neolite was used as the sensor.
-Internal calibration used in lieu of dry calibration factor.

TEST RESULTS: The average static coefficient of friction of four (4) pulls on each tile was as follows:

	<u>As Received</u>	<u>After Cleaning</u>
Tile 1: <u>Dry:</u>	<u>0.81</u>	<u>0.88</u>
<u>Wet:</u>	<u>0.61</u>	<u>0.54</u>
Tile 2: <u>Dry:</u>	<u>0.82</u>	<u>0.88</u>
<u>Wet:</u>	<u>0.62</u>	<u>0.55</u>
Tile 3: <u>Dry:</u>	<u>0.81</u>	<u>0.87</u>
<u>Wet:</u>	<u>0.62</u>	<u>0.54</u>

The average static coefficient of friction of twelve (12) pulls was as follows:

<u>Dry:</u>	<u>0.82</u>	<u>0.88</u>
<u>Wet:</u>	<u>0.62</u>	<u>0.54</u>



Virgil Irick
Director of Laboratory Services

10/13/06

Date



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TEST REQUESTED BY: Florim Ceramiche SpA
Attn: Allesandro Villa
Via Canaletto 24
41042 Fiorano (MO)
Italy

TEST SUBJECT MATERIAL: Identified by client as: Rex – Matouche Peau Ivoire 60 x 60

TEST DATE: 10/7/06


TEST PROCEDURE: ASTM C1028: "Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method"
-A Chatillon DFIS 100 digital force gauge was used to measure each pull in pounds-force.
-A 3 x 3 x 1/8 inch piece of Neolite was used as the sensor.
-Internal calibration used in lieu of dry calibration factor.

TEST RESULTS: The average static coefficient of friction of four (4) pulls on each tile was as follows:

	<u>As Received</u>	<u>After Cleaning</u>
Tile 1: <u>Dry:</u>	<u>0.73</u>	<u>0.83</u>
<u>Wet:</u>	<u>0.64</u>	<u>0.65</u>
Tile 2: <u>Dry:</u>	<u>0.73</u>	<u>0.84</u>
<u>Wet:</u>	<u>0.65</u>	<u>0.65</u>
Tile 3: <u>Dry:</u>	<u>0.73</u>	<u>0.85</u>
<u>Wet:</u>	<u>0.66</u>	<u>0.67</u>

The average static coefficient of friction of twelve (12) pulls was as follows:

<u>Dry:</u>	<u>0.73</u>	<u>0.84</u>
<u>Wet:</u>	<u>0.65</u>	<u>0.66</u>



Virgil Irick
Director of Laboratory Services

10/13/06

Date