TILE COUNCIL OF NORTH AMERICA, INC.

PRODUCT PERFORMANCE TESTING LABORATORY
100 Clemson Research Blvd., Anderson, SC 29625
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February 22, 2021

MS International, Inc.
Attn: Morgan Huang
2095 N. Batavia Street
Orange, CA 92865
USA

Dear Morgan Huang,

Tile Council of North America has tested the samples you submitted. Test report TCNA-0091-21 is enclosed. If you have any questions or concerns, please contact us.

Best Regards,

TILE COUNCIL OF NORTH AMERICA, INC.

Damon McDowell
Laboratory Supervisor
Enclosures

This report is confidential and has been prepared for the exclusive use of the client. It is not an endorsement, approval, certification, or criticism of any product by TCNA. This report shall not be published in any form without prior written consent from TCNA

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TEST REQUESTED BY: **MS International, Inc.**

TEST METHOD: **ANSI A326.3-2017: "American National Standard Test Method for Measuring Dynamic Coefficient of Friction of Hard Surface Flooring Materials"**

Informal Test Method Description: This standard describes the test method for measuring dynamic coefficient of friction (DCOF) of hard surface flooring materials under the wet condition using the BOT 3000E device.

This summary is provided for the reader's convenience and is not a complete description of the method. See ANSI A326.3 for all method details and information.

TEST SUBJECT MATERIAL: Identified by client as: **"Legions Line 1cm"**
Approximate Size as Received: 12"x12"
Product Color: Not provided

TEST DATE: 2/17/2021

TEST PROCEDURE NOTES:

- Sample Prep: none
- The specimens were cleaned with Bona Stone, Tile and Laminate Floor Cleaner prior to testing.
- Three (3) specimens were tested in all four directions with 10"long measurements.
- The SBR sensor was verified using a standard tile prior to testing.
- Testing was performed under wet conditions using 0.05% SLS water
- Testing was conducted under laboratory conditions at approximately 70°F and 50% relative humidity using a calibrated BOT 3000E device (calibration due: 9/3/2021).
- After testing, the SBR sensor was verified again according to the procedure.

TEST RESULTS:

The individual and average DCOF data for each specimen were as follows:

Direction	**Specimen 1**	**Specimen 2**	**Specimen 3**
Direction 1	0.35	0.36	0.37
Direction 2	0.35	0.35	0.36
Direction 3	0.37	0.36	0.38
Direction 4	0.37	0.36	0.38
Average	0.36	0.36	0.37

COMMENTS: None

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IMAGE OF PRODUCT TESTED:

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ANSI SPECIFICATIONS:

According to the ANSI A326.3, "Unless otherwise specified, hard surface flooring materials suitable for level interior spaces expected to be walked upon when wet with water shall have a wet DCOF of 0.42 or greater when tested using SBR sensor material and SLS solution as per this standard. However, hard surface flooring materials with a DCOF of 0.42 or greater are not necessarily suitable for all projects. The specifier shall determine materials appropriate for specific project conditions, considering by way of example, but not in limitation, type of use, traffic, expected contaminants, expected maintenance, expected wear, and manufacturers' guidelines and recommendations."

This paragraph is excerpted from Section 3.1 of the standard. For the complete section, including necessary information for specifiers, this section can be viewed and downloaded at no cost at http://www.tcnatile.com/images/pdfs/ANSI_A326.3_1-18.pdf

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Unless otherwise expressly stated, TCNA tested the specific test subject material provided by the client and identified in the lab report, as indicated by the client. TCNA does not independently verify the information provided by the client, and it makes no representation that similar results would be achieve with other, untested materials, even if such other materials purportedly have the same product name, are purportedly of the same or similar type of tile or product made by the client, or are purportedly from the same batch of tile or product. Nor does TCNA state that the date in this report is representative

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D. L. M. Dowell

Damon McDowell
Laboratory Supervisor

2/22/2021

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