SOTTER ENGINEERING CORPORATION Floor Slip Resistance Consultants

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CERTIFIED

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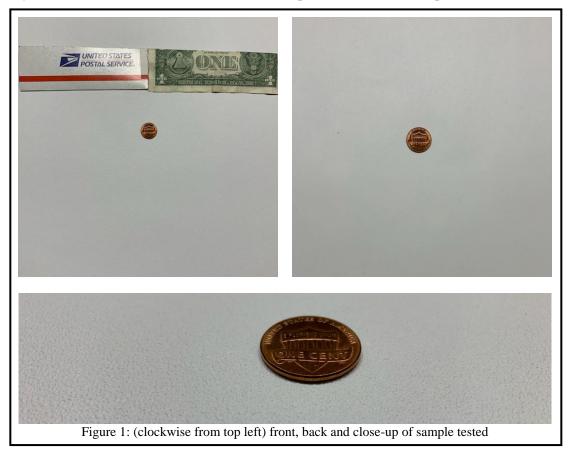
Certified by the City of Los Angeles as an official slip resistance testing laboratory for flooring

ANSI A137.1/A326.3 Flooring Slip Resistance Test Results

Client: Dreamscape Flooring: Caviar Wall and Floor Wrap Page 1 of 3 Test no.: 2004-1421 Report date: 5/1/2020

Date tested: 4/14/20

Figure 1 shows the sample. Red, green, blue, and white color references are included, with a U.S. penny (1/16 inch thick) for scale. The back of the tape is included to aid in positive identification.



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Flooring: Caviar Wall and Floor Wrap

ANSI A137.1/A326.3 Dynamic Coefficient of Friction Test

The American National Standards Institute (ANSI) published the A137.1-2012 American National Standard test for measuring dynamic coefficient of friction (DCOF) of common hard-surface indoor level floor materials in 2012. This ANSI standard was incorporated as a requirement in "Section 2103.6 Ceramic Tile" of the 2012 International Building Code published by the International Code Council. (It was removed for the next edition in 2015.) That section states that "Ceramic tile shall be defined in, and shall conform to the requirements of, ANSI A137.1." ANSI published A326.3 in 2017, which uses the same test method as A137.1, but allows for flooring other than ceramic tile to be tested, adds some disclaimers, and describes the method for testing in the field.

Average Dynamic Coefficient of Friction (DCOF), cleaned with Renovator #120, and tested with BOT-3000E digital tribometer using SBR rubber slider and 0.05% SLS water solution:

Area #1 Wet: 0.51, 0.48, 0.47, 0.49; Avg. = 0.49 Area #2 Wet: 0.53, 0.48, 0.48, 0.45; Avg. = 0.49 Area #3 Wet: 0.53, 0.49, 0.50, 0.48; Avg. = 0.50 Overall average: Wet: 0.49

T = 69 degrees F; Relative humidity = 70%; BOT recalibration due July 31, 2020 BOT-3000E strain gauge verified on day of test. ANSI A326.3: DCOF on validation surface (10.1.7) before/after testing and whether in range: passed/passed

High dynamic coefficient of friction values indicate potentially good traction. The ANSI A137.1 standard, Section 6.2.2.1.10, states that

"Unless otherwise specified, tiles suitable for **level interior spaces expected to be walked upon wet shall have a wet DCOF of 0.42 or greater** when tested using SLS solution as per the procedure in Section 9.6.1. However, tiles with a DCOF of 0.42 or greater are not necessarily suitable for all projects. The specifier shall determine tiles 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.

"... The presence on installed tiles of water, oil, grease, and/or any other elements which reduce traction, creates slippery conditions ... Tile installations with exposure to such elements require extra caution in product selection, use, and maintenance. ... When tested using SLS solution as per the procedure in Section 9.6.1, tiles with a wet DCOF of less than 0.42 shall only be installed when the surface will be kept dry when walked upon and proper safety procedures will be followed when cleaning the tiles."

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This standard has no recommendations for outdoor floors or for ramps.

Respectfully submitted, SOTTER ENGINEERING CORPORATION

George Sotte

J. George Sotter, P.E., Ph.D. President

