

TorTestSM Floor Friction Testing Service
SOTTER ENGINEERING CORPORATION
Consultants

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*Licensed by the State of California
Board for Professional Engineers
and Land Purveyors*

*Approved by City of Los Angeles
for testing slip resistance of flooring*

Flooring Slip Resistance Test Results — BOT 3000

Client: **Skudo USA Inc.**

Flooring: **HT Skudo mat (Orange) mounted on fiber board**

Report date: 9/16/12

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Sample no.: 1209-1412

Pieces tested: 1

Date tested: 9/15/12

Sample size: 13 in x 13 inches

Where tested: Sotter Engineering Corp. lab

How and when sample obtained: Supplied by client 9/14/12

Static and dynamic coefficient of friction (COF) by BOT-3000 digital tribometer, using ANSI B101.1 and B101.3 test methods for *wet* friction. The same test methods, but without wetting, are used for dry friction.

Average static (S) and dynamic (D) coefficient of friction:

	AS RECEIVED	
	<u>Dry</u>	<u>Wet</u>
SCOF	1.00	1.00
DCOF	0.64	0.56

Results apply only to the sample tested. Values of 0.90 or higher may be lower than actual COF because the BOT-3000 cannot measure instantaneous values exceeding 1.00. High values indicate potentially good traction. Slip resistance can be affected by maintenance-related items including wear, floor coatings, buffing, and contamination, as well as footwear. Please see the next page for ANSI minimum recommendations regarding average SCOF and DCOF.

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The BOT-3000 uses 28 mm (1.1 inch) wide curved laboratory-grade artificial hard rubber test feet. Further information on the BOT-3000, and a video demonstration of the instrument, can be found at

<http://www.safetydirectamerica.com/BOT-3000.html>

ANSI denotes the American National Standards Institute — a private, not-for-profit organization. Their method B 101.1 is “Test Method for Measuring Wet SCOF of Common Hard-Surfaced Floor Materials.” The method quotes the following reference values:

<u>Wet average SCOF value</u>	<u>Available traction</u>
≥ 0.60	High traction — lower probability of slipping
0.40 – <0.60	Moderate traction — increased probability of slipping
<0.40	Minimal available traction — higher probability of slipping

ANSI B101.3 is “Test Method for Measuring Wet DCOF of Common Hard-Surface Floor Materials.” The method quotes the following reference values:

<u>Wet average DCOF value</u>	<u>Slip resistance potential</u>
0.43 or higher (level floor) 0.46 or higher (inclines)	Lower probability of slipping
0.30–0.42 (level floor) 0.30–0.45 (inclines)	Increased probability of slipping
Less than 0.30	Higher probability of slipping

Sotter Engineering Corporation, and most leading slip-and-fall forensic experts, believe that *dynamic* friction is a more reliable way of assessing wet slip potential than is *static* friction.

Individual values of wet DCOF for the sample, as required by ANSI B101.3:

0 degrees	57	58	57	57	58
90 degrees	58	56	56	55	57
180 degrees	56	55	55	55	58
270 degrees	54	53	54	52	53

Respectfully submitted,
SOTTER ENGINEERING CORPORATION



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



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