

**TorTest<sup>SM</sup> Floor Friction Testing Service**  
**SOTTER ENGINEERING CORPORATION**  
Consultants

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## Flooring Slip Resistance Test Results

Client: **Impulse Sales Ltd.**

Flooring: **Pavers, Monster Grip slip-resistant coating, clear**

Size: 11.7" x 11.7"      Number tested: 2      Types of tests: Static friction and roughness

Test #1: American Society for Testing and Materials, Method  
ASTM C 1028-89, Static Coefficient of Friction

Static coefficient of friction,  
as received, average of 12 values:

<u>Dry</u>	<u>Wet</u>
<b>0.87</b>	<b>0.85</b>

High coefficients of friction indicate potentially good traction. The Access Board of the U.S. Department of Justice, the Ceramic Tile Institute, and the City of Los Angeles, recommend a **minimum** average static coefficient of friction of **0.60** for level floors and **0.80** for ramps.

Individual repetition values obtained in the test (for information only; required by ASTM and City of Los Angeles):

<u>Repetition</u>	<u>Dry</u>	<u>Wet</u>	
1	0.95	0.83	Tile #1 (Water-reducible coating)
2	0.83	0.92	
3	0.89	0.90	
4	0.93	0.91	
5	0.88	0.79	Tile #2 (Aerosol coating)
6	0.84	0.80	
7	0.88	0.87	
8	0.84	0.91	
9	0.86	0.81	
10	0.89	0.79	
11	0.86	0.80	
12	0.84	0.82	
<b>Average</b>	<b>0.87</b>	<b>0.85</b>	

Flooring: Pavers, Monster Grip slip-resistant coating, clear  
(continued)

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Test #2: Surface micro-roughness ( $R_{tm}$ ), total peak-to-valley mean

Average surface roughness, microns: 32

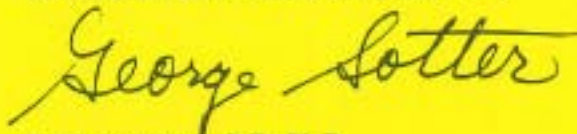
High values of surface roughness, combined with a high coefficient of friction, improve traction on wet surfaces. Hard surfaces having roughness of 20 microns or greater and a high coefficient of friction have been found to give good traction under wet conditions.

Roughnesses for the water-reducible coating (Tile #1) and the aerosol coating (Tile #2) were essentially equal at  $32 \pm 3$  microns.

For reference only: approximate surface roughnesses of some materials commonly found in hardware stores —

<u>Material</u>	<u>Roughness, microns</u>
Clear glass	0.1
Silicon carbide sandpaper, 1500 grit (very fine)	13
400 grit (fine)	30
320 grit (medium)	46

Respectfully submitted,  
SOTTER ENGINEERING CORPORATION



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