



# LABORATORY REPORT

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**FOR:** Bill Witherspoon, Emseal

**SUBJECT:** Emseal  
Slip Resistance Evaluation

**DATE:** September 19, 2008  
**PROJECT:** 0809-09 SLR

**SAMPLES TESTED:** One stainless steel cover plate

Size: 12" x 20" x 3/4"

Submitted By: Bill Witherspoon  
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## PURPOSE OF TEST:

- To determine the slip resistance characteristics of the submitted stainless steel cover plate.
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## TEST METHODS: ASTM C 1028 Slip Resistance Evaluation

The samples were tested for wet and dry static coefficient of friction using procedures and materials in accordance with ASTM C 1028.

### Calibration

A 50-lb weight with a neolite heel attached on the bottom of the assembly was placed on the standard tile. Using a dynamometer the force required to set the heel assembly into motion was recorded.

A total of four pulls were made with each pull being perpendicular to the previous pull. The following equation was used to determine the calibration factors. The calibration procedure was repeated for both a dry and wet surface.

$$X_D = 0.71 - \frac{R}{NW}$$

$$X_W = 0.47 - \frac{R}{NW}$$

$X_D$  = Dry Calibration Factor  
 $X_W$  = Wet Calibration Factor  
 $R$  = Sum of the recorded pulls  
 $N$  = Number of pulls  
 $W$  = Weight of the neolite heel assembly

### **Testing – Dry and Wet**

A 50-lb weight assembly with a neolite heel attached on the bottom of the assembly was placed on top of the tile to be tested. Using a dynamometer the force required to set the test assembly in motion was measured.

Four pulls, each perpendicular to the previous pull, on three different surfaces was measured to give a total of four measurements. The following equations were used to determine the static coefficient of friction. The tests were run on both a wet and dry surface.

$$F_D = \frac{R}{NW} + X_D$$

$$F_W = \frac{R}{NW} + X_W$$

$F_D$  = Static Coefficient of Friction for Dry Surface  
 $F_W$  = Static Coefficient of Friction for Wet Surface  
 $R$  = Sum of the 4 force readings  
 $N$  = Number of Pulls (4)  
 $W$  = Total Weight of the Neolite Heel Assembly

No significant change, OR an increase in slip resistance with the treatment is desired. If a decrease in slip resistance should occur, the treatment ideally should not decrease slip resistance by more than 5%.

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**TEST RESULTS: Slip Resistance Evaluation**

Sample	DRY SCOF	WET SCOF
Stainless Steel Cover Plate	1.176	0.936

Current ADA regulations suggest that horizontal surfaces have a static coefficient of friction (SCOF) of 0.6 or greater and a ramped surface have a static coefficient of friction of 0.8 or greater. It should be noted that the larger the SCOF the more resistant the surface is to slipping.

A handwritten signature in black ink, reading 'Courtney A. Murdock'.

Courtney A. Murdock  
Project Testing Director

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**ALL SAMPLES SUPPLIED FOR THE ABOVE EVALUATION WILL BE DISPOSED OF NINETY (90) DAYS AFTER THE ISSUE DATE OF THIS REPORT. IF SAMPLES ARE TO BE RETAINED FOR ADDITIONAL TESTING OR RETURNED TO THE SENDER, PROVIDE WRITTEN INSTRUCTIONS TO THE LABORATORY WITHIN NINETY (90) DAYS OF THE ISSUE DATE OF THIS REPORT.**

Recommendations made within this report are based on laboratory test applications and observations. Final determination of the suitability of a product and/or procedure should be made only after thorough job testing on actual surfaces.