

**HANOVER ASPHALT PAVER
PERFORMANCE TEST REPORT**

Rendered to:

HANOVER ARCHITECTURAL PRODUCTS

**PRODUCT: Hanover Asphalt Pavers
TYPE: Ground and Ground Tudor Finishes**

Report No.:	54865.03-106-31
Report Date:	06/07/05
Expiration Date:	05/21/09

**HANOVER ASPHALT PAVER
PERFORMANCE TEST REPORT**

Rendered to:

HANOVER ARCHITECTURAL PRODUCTS
240 Bender Road
Hanover, Pennsylvania 17331

Report No.: 54865.03-106-31
Test Date: 05/06/05
Through: 05/21/05
Report Date: 06/07/05
Expiration Date: 05/21/09

Product: Hanover Asphalt Pavers

Type: Ground and Ground Tudor Finishes

Project Summary: Architectural Testing, Inc. (ATI) was contracted by Hanover Architectural Products to conduct slip resistance evaluations of their asphalt pavers. The pavers were evaluated in accordance with ASTM C 1028-96, *Standard Test Method for Determining the Static coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull Method*. The average results are contained in the following table:

Results Summary

Sample / Finish	Dry Coefficient	Wet Coefficient
Ground	0.86	0.71
Ground Tudor	0.88	0.69

Test Specimen: The test samples were 4" by 4" by 2" thick asphalt pavers. Three samples were tested having a "Ground" finish and three were tested having a "Ground Tudor" finish.

Test Procedure: The pavers were evaluated by pulling a weighted sled (50 pounds plus the sled weight) with an attached 3" by 3" Neolite pad across the test surface. The paver was then rotated 90° incrementally and evaluated in all four directions. The Neolite pad was resurfaced in accordance with ASTM C 1028. Three pavers were evaluated for each surface finish and also under dry and wet conditions. Wet condition identifies a saturated surface or "puddling".

Test Results: The individual results of testing are contained in the following tables.

Sample / Orientation	"Ground" Finish		"Ground Tudor" Finish	
	Dry	Wet	Dry	Wet
1 - 0°	41	39	46	38
1 - 90°	38	39	48	38
1 - 180°	35	40	43	38
1 - 270°	39	41	57	39
2 - 0°	39	40	41	37
2 - 90°	43	41	37	37
2 - 180°	40	38	37	37
2 - 270°	41	38	34	39
3 - 0°	41	38	41	38
3 - 90°	43	38	39	40
3 - 180°	47	38	39	38
3 - 270°	41	38	39	38
Coefficient¹	0.86	0.71	0.88	0.69

¹Note: Coefficient = Sum of 12 force readings / (number of pulls * sled assembly weight) + calibration factor.

	Dry	Wet
Calibration Factor	0.07	-0.05
Sled Weight	51.38 lb	51.56 lb

A copy of this report will be retained by ATI for a period of four years from the original test date. This report is the exclusive property of the client so named herein, and is applicable to the samples evaluated. The results presented in this report are obtained values and do not constitute an opinion nor endorsement by this laboratory or any of its representatives. This report may not be reproduced, except in full, without the express written permission of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC:

Joseph M. Brickner
Senior Technician - Component/Materials Testing

Todd D. Burroughs
Director - Component/Materials Testing

JMB:nlb

Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	06/07/05	N/A	Original report issue