



Sitefox Surveying and Testing Ltd.

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TEST REQUESTED BY: Sample Client
TEST SUBJECT Sample Material
ADDRESS: 123 Any Street
TEST DATE: MMMM DD, YYYY
TEST PROCEDURE: ASTM E303-22/ ASTM D523

Technician: Technician info@sitefox.ca (778) 288-0410

Sample 1: Tested wet and dry in one direction across the surface.
Sample 2: Tested wet and dry in one direction across the surface.
Sample 3: Tested wet and dry in one direction across the surface.
Sample 4: Tested wet and dry in one direction across the surface.
Sample 5: Tested wet and dry in one direction across the surface.
Sample 6: Tested wet and dry in one direction across the surface.

Rubber contact travel distance was 126 mm or 4.96".

Testing was performed under exterior/wet conditions using 0.05% SLS solution distilled water for simulation.

Testing was conducted at an average **18.5** °C surface temperature and **37.7** % average ambient relative humidity using a calibrated BM-III Pendulum Coefficient of Friction Test device.

ASTM E303-22 test method provides a measure of frictional property, micro texture of surfaces, either in the field or in the laboratory.

ASTM D523 Provides a gloss unit (GU) reading at 20, 60 and 85 degree angles.

TEST RESULTS: The individual and average (PTV) BPV/DCOF data for each sample were as follows with surface temperature, relative humidity and surface gloss units at 20°, 60° and 85° angles.

ASTM E303-22 PTV/BPV/DCOF												
Test Sample	Sample 1		Sample 2		Sample 3		Sample 4		Sample 5		Sample 6	
Unit	PTV/BPV	DCOF	PTV/BPV	DCOF	PTV/BPV	DCOF	PTV/BPV	DCOF	PTV/BPV	DCOF	PTV/BPV	DCOF
Dry Test 1	78	0.94	81	0.99	64	0.73	93	1.13	79	0.96	74	0.88
Dry Test 2	83	1.00	78	0.94	61	0.69	96	1.17	78	0.94	78	0.94
Wet Test 1	44	0.47	40	0.42	31	0.31	38	0.39	35	0.36	35	0.36
Wet Test 2	41	0.43	36	0.37	30	0.30	34	0.35	32	0.33	36	0.37
Wet Test 3	38	0.39	33	0.34	35	0.36	33	0.34	29	0.29	38	0.39
Wet Test 4	35	0.36	35	0.36	33	0.34	31	0.31	26	0.26	30	0.30
Wet Test 5	37	0.38	32	0.33	34	0.35	32	0.33	28	0.28	31	0.31
Average (does NOT include dry test)	39.00	0.41	35.20	0.36	32.60	0.33	33.60	0.34	30.00	0.30	34.00	0.35
Average DCOF:	0.37											

Surface Temp/ Relative Humidity												
Test Sample	Sample 1		Sample 2		Sample 3		Sample 4		Sample 5		Sample 6	
Unit °C / %	Surface Temp	Rh %	Surface Temp	Rh %	Surface Temp	Rh %	Surface Temp	Rh %	Surface Temp	Rh %	Surface Temp	Rh %
Value	20.8	34.50	18.4	35.30	17.1	43.20	19.2	35.20	18.8	36.40	16.9	41.50
Average Temp °C	18.5											
Average Rh %	37.7											

ISO 2813 / ASTM D523 Surface Gloss GU						
Test Sample	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6
20° GU unit	1.7	3.80	1.3	2.40	1.8	1.70
60° GU unit	14.2	16.40	9.1	10.10	13.2	12.80
85° GU unit	64.8	41.70	51.6	34.00	47.8	45.60
Average 20° GU	2.12	Level 2 Low Sheen				
Average 60° GU	12.63					
Average 85° GU	47.58					

Photo 1: Sample 1



Photo 2: Sample 1



Photo 3: Sample 2



Photo 4: Sample 2



Photo 5: Sample 3

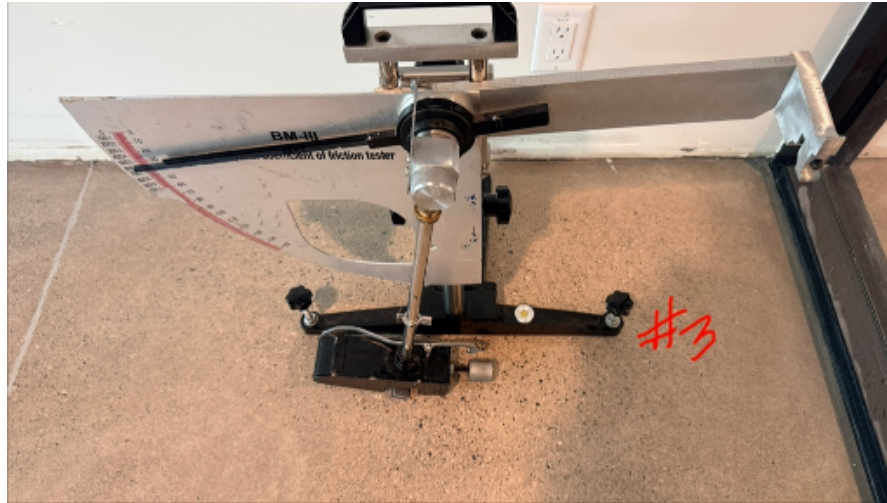


Photo 6: Sample 3



Photo 7: Sample 4



Photo 8: Sample 4



Photo 9: Sample 5



Photo 10: Sample 5



Photo 11: Sample 6



Photo 12: Sample 6



TEST METHOD: ASTM E303-22 Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester

Summary of Test Method

This test method consists of using a pendulum-type tester with a standard rubber slider to determine the frictional properties of a test surface. The test surface is cleaned

[E303 Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester \(astm.org\)](https://www.astm.org/E303-22.html)

NOTE:

The Pendulum Test Value (PTV) is a measure of slip resistance expressed in units of PTV or BPV, which is roughly equivalent to the dynamic coefficient of friction (DCOF).

The relationship between PTV and DCOF is as follows: for a PTV of 31, the DCOF is 0.31, and for a PTV of 50, the DCOF is 0.54. The DCOF can exceed 1.00, and the pendulum can measure PTV as high as 150. It is important to note that different measurement methods yield different DCOF values for the same surface, and the DCOF is much lower than the 0.60 static coefficient of friction used for years as a misleading safety criterion.

The DCOF is a crucial factor in assessing the safety of flooring materials, especially in areas where slip and fall accidents are a concern.

[Reference: Safety Direct America](#)

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