



**Registered Testing Authority - CSIRO**

8 November 2016

Our Ref. EN13 / 1683 03/0212

**TEST REPORT No. 7786.7**

Requested by: Forbo Flooring Systems  
 23 Ornsby Place  
 Wetherill Park  
 NSW 2164

on (date): 13 October 2016

Manufacturer: Forbo Flooring Systems

Product Desc.: Sphera 50004 Homogeneous Flooring

Sampling details:

Where: At customer premises

Date: 14 October 2016

By whom: Courier

How (methods): N/A

The results reported relate only to the sample(s) tested and the information received. No responsibility is taken for the accuracy of the sampling unless it is done under our own supervision. CSIRO cannot accept responsibility for deviations in the manufactured quality and performance of the product. While CSIRO takes care in preparing the reports it provides to clients, it does not warrant that the information in this particular report will be free of errors or omissions or that it will be suitable for the client's purposes. CSIRO will not be responsible for the results of any actions taken by the client or any other person on the basis of the information contained in the report or any opinions expressed in it. The reproduction of this test report is only authorised in the form of a complete photographic facsimile. Our written approval is necessary for any partial reproduction.

This test report consists of 6 pages

**SUMMARY OF SLIP RESISTANCE TESTS PERFORMED:**

		Result	Class
AS 4586:2013	Slip resistance classification of new pedestrian surface materials		
	Appendix A: WET Pendulum (Slider 96). Mean SRV:	42	P3
	Appendix B: DRY (FFT). Mean COF:	0.65	D1
	Appendix A,B: Dual classification:		P3 ,D1
AS 4586:2013	Slip resistance classification of new pedestrian surface materials		
	Appendix C: WET/BAREFOOT Ramp		
	Mean angle of inclination:	11°	
AS 4586:2013	Slip resistance classification of new pedestrian surface materials,		
	Appendix D: OIL-WET Ramp		
	Corrected mean overall acceptance angle:	11°	R 10

In order to interpret the classifications, please refer to Standards Australia Handbook 198, An Introductory Guide to the Slip Resistance of Pedestrian Surface Materials, which recommends minimum classifications for a wide variety of locations.

It is important to realise that test results obtained on unused factory-fresh samples may not be directly applicable in service, where proprietary surface coatings, contamination, wear and subsequent cleaning all influence the behaviour of the pedestrian surface.



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**SLIP RESISTANCE CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIALS**

**WET PENDULUM TEST METHOD**

TEST CARRIED OUT IN ACCORDANCE WITH  
AS 4586:2013 (Appendix A)

Test Date: 3 November 2016

RESULTS:	Location:	Slip Resistance Laboratory	Slider used:	96
	Sample:	Unfixed	Conditioned with grade P400 paper, dry	
	Cleaning:	Deionized water	and Imperial Lapping Film Grade 3MIC, wet	
	Temperature:	21.8°C		

Pendulum Friction Tester: ERM.030.002 (S/N: 9234, calibrated 24/04/2015)  
Test conducted by: Khanh Ho

	Specimen				
	1	2	3	4	5
<b>Last 3 swings (BPN)</b>	44	43	43	42	42
	43	42	42	41	41
	42	42	41	41	41
<b>Averages</b>	43	42	42	41	41
	<b>Mean SRV :</b>				<b>42</b>

**CLASS :**

**P3**

Where products are to be used in wet barefoot areas, it is more appropriate to test to Appendix C of AS 4586 (which is technically equivalent to DIN 51097).



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**SLIP RESISTANCE CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIALS**

**DRY FLOOR FRICTION TEST METHOD**

TEST CARRIED OUT IN ACCORDANCE WITH  
AS 4586:2013 (Appendix B)

Test Date: 26 October 2016

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RESULTS Location: Slip Resistance Laboratory Slider 96  
Sample Sample Unfixed Conditioned with grade P400 paper, dry  
Cleaning: Deionized water  
Temperature: 22.5°C  
FFT measurements taken over 2 passes of 800mm each

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Floor Friction Tester: ERM.030.005 (Tortus Mk II (S/N: 224))  
Test conducted by: Khanh Ho

**Run 1: Average COF: 0.68**  
**Run 2: Average COF: 0.60**  
**Mean COF: 0.64**

According to AS 4586 the Dry Coefficient of Friction shall be reported as :  
(mean rounded to the nearest 0.05)

**0.65**

**CLASS :**

**D1**

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**SLIP RESISTANCE CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIALS**

**WET/BAREFOOT RAMP TEST METHOD**

TEST CARRIED OUT IN ACCORDANCE WITH  
AS 4586:2013 (Appendix C)

Test Date: 3 November 2016

Location: Slip Resistance Laboratory Test conducted by: KH, AG

Sample Fixed

Joint width: 0 mm

Surface structure:  Smooth  
 Profiled  
 Structured

**RESULTS**

	Critical angle mean	Reported mean
Mean angle of inclination:		
Verification Board WB-A:	12.07 °	12 °
Verification Board WB-B:	18.97 °	18 °
Verification Board WB-C:	23.43 °	23 °
Mean angle of inclination of Test Board:	11.03 °	11 °

**CLASSIFICATION:**

Quality Group:

**PLEASE NOTE!**

This pedestrian surface material cannot be classified because the mean angle of inclination of calibration Board A was 12.07 and the test sample only achieved the lower mean result of 11.03 degrees.



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**SLIP RESISTANCE CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIALS**

**OIL-WET RAMP TEST METHOD**

TEST CARRIED OUT IN ACCORDANCE WITH  
AS 4586:2013 (Appendix D)

Test Date: 26 October 2016

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Location: Slip Resistance Laboratory Test conducted by: KH, AG

Sample Unfixed

Joint width: 0 mm

Surface structure:  Smooth  
 Profiled  
 Structured

**RESULTS**

Corrected mean overall acceptance angle: 11 °

Displacement space: not tested

**CLASSIFICATION:**

**Slip Resistance Assessment Group:**

**R 10**

**Displacement Space Assessment Group:**

**-**

Test shoe used: Uvex Athletic

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## Infrastructure Technologies

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Date and Place 8 November 2016, Clayton, Vic

Name, Title and Digital Signature:

A digital signature in black ink, appearing to read 'Khanh Ho', is overlaid on a semi-transparent grey circular watermark of the CSIRO logo.

**KHANH HO**  
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