



Infrastructure Technologies

Gate 5, 2 Normanby Road Clayton VIC 3168, Australia

Telephone: 61 3 9545 2777 Web: <http://www.csiro.au>

Registered Testing Authority - CSIRO

13 May 2019

Our Ref. EN13 / 1683 03/0212

TEST REPORT No. 8239.3

Requested by: Forbo Flooring Systems
23 Ornsby Place
Wetherill Park
NSW 2164
on (date): 11 April 2019
Manufacturer: Forbo Flooring Systems
Product Desc.: 178032 - Surestep Star ESB, 2.0mm PVC vinyl sheet product, PUR

Sampling details:
Where: At customer premises
Date: 15 April 2019
By whom: client (delivered by 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 TEST METHOD (Slider 96): Mean SRV:	49	P4
AS 4586:2013	Slip resistance classification of new pedestrian surface materials Appendix C: WET-BAREFOOT INCLINING PLATFORM TEST METHOD Mean angle of inclination:	19°	B
AS 4586:2013 (Amendment No. 1)	Slip resistance classification of new pedestrian surface materials, Appendix D: OIL-WET INCLINING PLATFORM TEST METHOD Corrected mean overall acceptance angle:	22°	R 11

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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PHOTOS:



Top view



Close up



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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: 10 May 2019

RESULTS:	Location:	Slip Resistance Laboratory	Slider used: 96 Conditioned with grade P400 paper, dry and Imperial Lapping Film Grade 3MIC, wet
	Sample:	Unfixed	
	Cleaning:	Deionized water	
	Temperature:	20.9°C	

Pendulum Friction Tester: ERM 030.040 (S/N: 1726, calibrated 07/09/18), S 96 serial #: 87 (expired on 20/2/2020)
Test conducted by: Khanh Ho

	Specimen				
	1	2	3	4	5
Last 3 swings (BPN)	50	50	50	48	48
	49	50	50	48	48
	49	49	49	48	48
Averages	49	50	50	48	48

Mean SRV : 49

CLASS :

P4



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SLIP RESISTANCE CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIALS

WET-BAREFOOT INCLINING PLATFORM TEST METHOD

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

Test Date: 6 May 2019

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

Sample Fixed

Joint width: 0 mm

Surface structure:

<input type="checkbox"/>	Smooth
<input checked="" type="checkbox"/>	Profiled
<input type="checkbox"/>	Structured

RESULTS

	Critical angle mean	Reported mean
Mean angle of inclination:		
Verification Board WB-A:	11.16 °	11 °
Verification Board WB-B:	18.57 °	18 °
Verification Board WB-C:	24.97 °	24 °
Mean angle of inclination of Test Board:	19.95 °	19 °

CLASSIFICATION:

Quality Group:

B



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SLIP RESISTANCE CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIALS

OIL-WET INCLINING PLATFORM TEST METHOD

TEST CARRIED OUT IN ACCORDANCE WITH
AS 4586:2013 (Appendix D) (Amendment No. 1)

Test Date: 10 May 2019

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

Sample Fixed

Joint width: 0 mm

Surface structure:

<input type="checkbox"/>	Smooth
<input checked="" type="checkbox"/>	Profiled
<input type="checkbox"/>	Structured

RESULTS

Corrected mean overall acceptance angle: 22 °

Displacement space: not tested

CLASSIFICATION: Slip Resistance Assessment Group:

R 11

Displacement Space Assessment Group:

-

Test shoe used: Leipzig V73-SP



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Date and Place 13 May 2019, Clayton, Vic

Name, Title and Digital Signature:



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