

Materials Science & Engineering, Graham Road (PO Box 56), Highett, Victoria, Australia 3190 Telephone: 61 3 9252 6000 Facsimile: 61 3 9252 6244 Email: tiles@csiro.au Web: http://www.cmse.csiro.au

Registered Testing Authority - CSIRO

24 September 2014

Our Ref. EN13 / 1637 03/0212

TEST REPORT No. 7172.1s

Requested by: The Andrews Group

62 River Street South Yarra VIC 3141

on (date): 17 September 2014

Manufacturer: BOLON

Product Desc.: BOLON Woven Vinyl: Natural Yarn

Sampling details:

Where: Delivered

Date: 17 September 2014

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 5 pages

SUMMARY OF SLIP RESISTANCE TESTS PERFORMED:

AS 4586:2013 Slip resistance classification of new pedestrian surface materials

Appendix A: WET Pendulum (Slider 96). Mean SRV: 37 P3 (X*) Appendix B: DRY (FFT). Mean COF: 0.80 D1 (F*)

Appendix A,B: Dual classification: P3 (X*),D1 (F*)

AS 4586:2013 Slip resistance classification of new pedestrian surface materials,

Appendix D: OIL-WET Ramp

Corrected mean overall acceptance angle: 15° R 10

(*) = AS 4568:2004 classification

Result

Class

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: 18 September 2014

RESULTS: Location: Slip Resistance Laboratory Slider used: 96

Conditioned with grade P400 paper, dry

Sample: Unfixed Cleaning: Deionized water

Temperature: 23℃

Pendulum Friction Tester: Stanley (S/N: 0312, calibrated 03/06/2014)

Test conducted by: Andy Giang

	Specimen 1	2	3	4	5
Last 3 swings (BPN)	38	39	36	36	36
	37	39	36	36	36
	37	39	36	36	36
Averages	37	39	36	36	36

Mean SRV: 37

CLASS:

P3 (X*)

(*) = AS 4568:2004 classification

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: 18 September 2014

RESULTS Location: Slip Resistance Laboratory Slider 96

Sample Sample Unfixed
Cleaning: Dry el/static cloth

Temperature: 23℃

FFT measurements taken over 2 passes of 800mm each

Sample Unfixed Conditioned with grade P400 paper, dry

Floor Friction Tester: Tortus Mk II (S/N: 224)

Test conducted by: Andy Giang

Run 1: Average COF: 0.79

Run 2: Average COF: 0.76

Mean COF: 0.78

According to AS 4586 the Dry Coefficient of Friction shall be reported as: 0.80

(mean rounded to the nearest 0.05)

CLASS:

D1 (F*)

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(*) = AS 4568:2004 classification



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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:	24 September 201

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

Sample Fixed

Joint width: 0 mm

Surface structure: [] Smooth

X Profiled
Structured

RESULTS

Corrected mean overall acceptance angle: 15 °

Displacement space: not tested

CLASSIFICATION:

Slip Resistance Assessment Group:

R 10

Displacement Space Assessment Group:

-

Test shoe used: Uvex Athletic



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Date and Place 24 September 2014, Highett, Vic

Name, Title and Digital Signature:

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