



ACCELERATED WEAR TESTING - SLIP RESISTANCE

Knotwood Decking Plank (Part # KEDP150)

Prepared for: Knotwood Pty Ltd
ATTENTION: Javan Higgs
7/63 Burnside Road
STAPYLTON QLD 4207

Introduction:

You requested that we carry out an Accelerated Wear Testing (AWT) on the supplied sample.

An initial Wet Pendulum Test was carried out to the requirements set out in AS 4586: 2013 [1]¹ using a Slider 55 rubber with the full report attached in Appendix 1.

Accelerated Wear Testing [2] was then conducted up to a total of 1000 cycles on all five (5) specimens.

The Wet Pendulum Test was continued on all five (5) specimens after the AWT process of 100, 300, 500 and 1000 cycles.

Sample Description: Knotwood Decking Plank (Part # KEDP150)
Sample Size: 150x300 mm.
No. of Specimens: 5 off (Sampling conducted by client)
Test Location: ATTAR – 44-48 Rocco Drive, Scoresby, VIC.
Test Date: 30 October 2024

AWT Parameters:

Stroke Length: 400 mm \pm 50 mm
Speed: 50 cycle per minute \pm 5 cycles
Wear Pad Type: 3M Scotch Brite No. 96 (green) pad
Wear Pad Size: 100x100 mm \pm 10 mm
Boat Weight: 1000g \pm 50 g
Lubricant: Potable water

¹The numbers in brackets refer to papers, reports or articles listed in the Reference section of this report.



Test Results:

Wet Pendulum Test:

The full report for the Wet Pendulum Test conducted on the sample supplied is attached in Appendix 1. The results are summarised as follows:

Specimen Number:	1	2	3	4	5
Mean British Pendulum Number (BPN):	68	70	71	70	70
Slip Resistance Value (SRV):	70				
Classification:	P5				

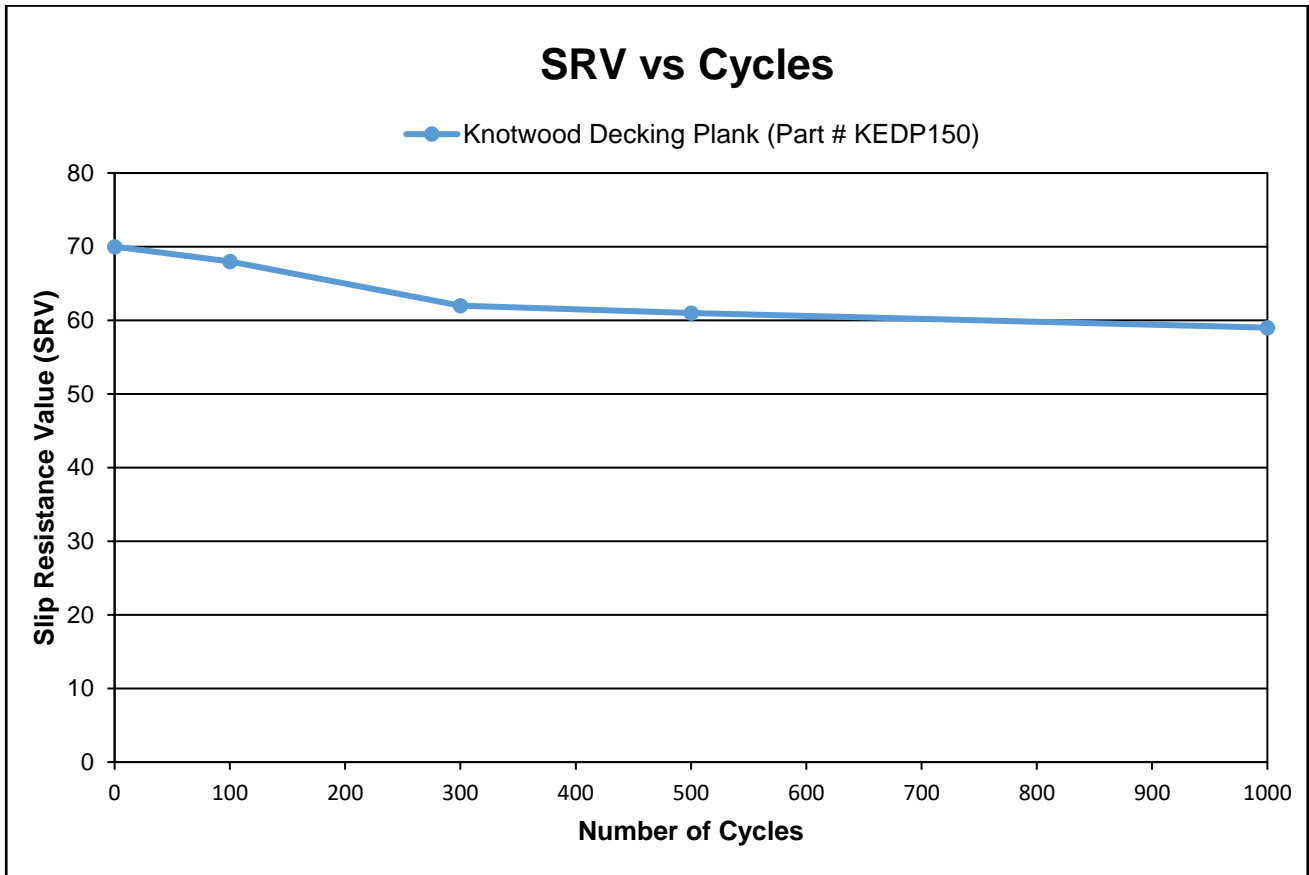
These results apply only to the areas and specimens tested. Where alternatives are permitted by the standard, the choice of rubber slider used may also influence the test results obtained.

Accelerated Wear Test:

The test results for the Accelerated Wear Testing conducted on all five (5) specimens is detailed in the table as follows:

Number of Cycles	Specimen Number					SRV	Classification
	1	2	3	4	5		
0	68	70	71	70	70	70	P5
100	69	66	68	69	68	68	P5
300	59	60	64	64	64	62	P5
500	59	59	61	65	63	61	P5
1000	55	56	61	62	62	59	P5

These results apply only to the areas and specimens tested. Where alternatives are permitted by the standard, the choice of rubber slider used may also influence the test results obtained.



Prepared By:

Marcus Bosworth
Compliance and Testing Technician

Reviewed by:

Marcus Braché
Senior Engineering Technician
Approved Signatory

References:

1. Australian Standard AS 4586: 2013 Slip Resistance classification of new pedestrian surface materials, Standards Australia, Sydney, New South Wales.
2. ATTAR Accelerated Wear Test Procedure ETP023.

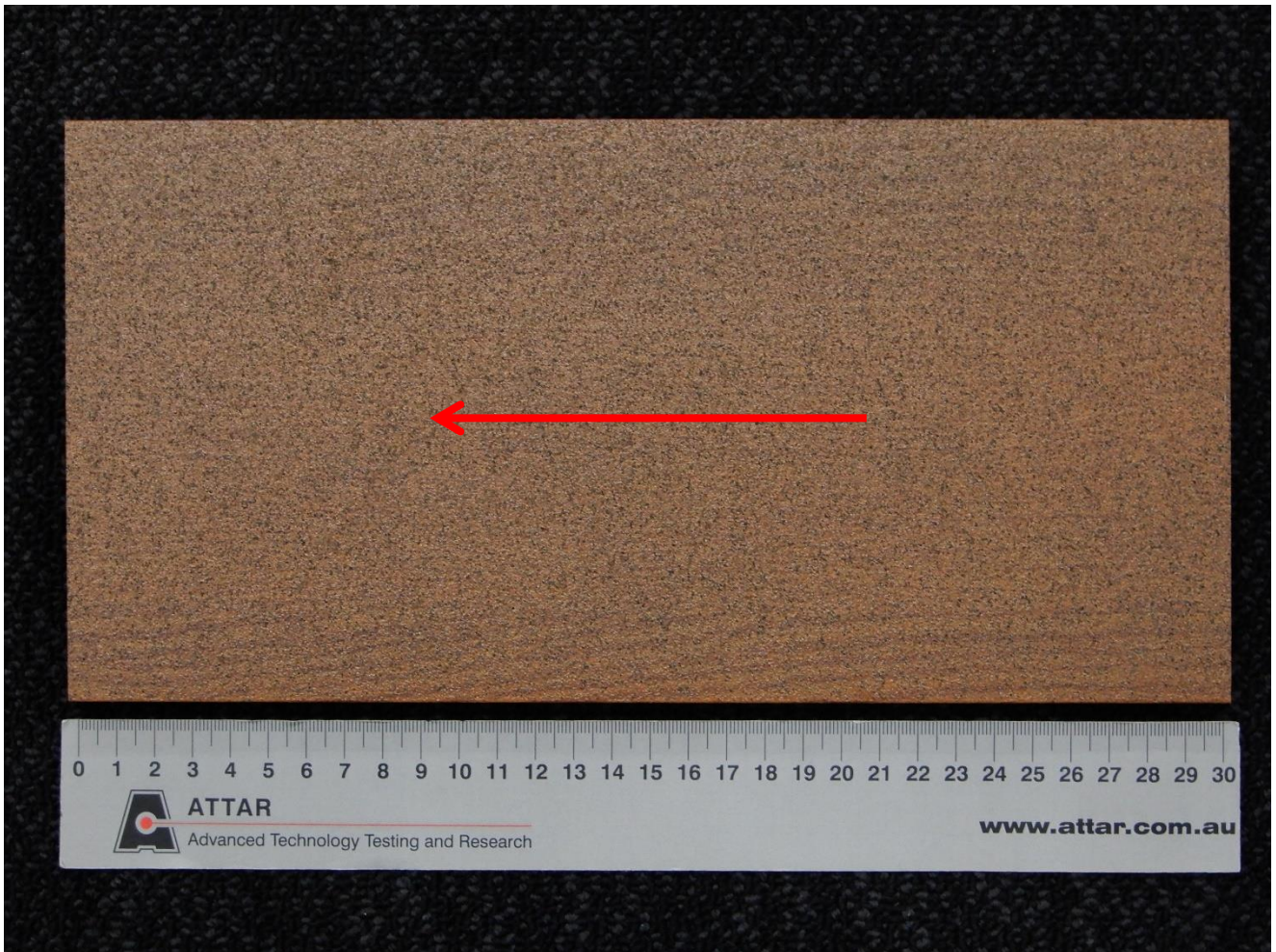


Figure 1: Knotwood Decking Plank (Part # KEDP150).
Arrow indicates direction of testing.



APPENDIX 1

Contents:

Reference:

Total Pages:

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WET PENDULUM SLIP RESISTANCE TEST

Knotwood Decking Plank (Part # KEDP150)

Prepared for: Knotwood Pty Ltd
Javan Higgs
7/63 Burnside Road
STAPYLTON QLD 4207

Sample Description: Knotwood Decking Plank (Part # KEDP150)

No. of Specimens & Size Supplied: 5 off, 150x300 mm, (Sampling Conducted by Client)

Specimen Preparation: Washed with water and pH neutral detergent, rinsed then dried.

Test Condition & Slope: Unfixed, N/A

Test Direction: Test conducted in the longitudinal direction.

Air Temperature: 21°C

Test Standard: AS 4586:2013 Slip resistance classification of new pedestrian surface materials, Appendix A - Wet Pendulum Test

Test Location: ATTAR 44-48 Rocco Drive, Scoresby, VIC, 3179

Test Date: 30 October 2024

Test Equipment: Munro Stanley Pendulum Skid Resistance Tester Serial Number 0320, Calibrated 05/09/2024.

Slider Rubber: Slider 55 Batch No. #48 prepared on P400 & 3µm lapping film.

Test Personnel: Marcus Bosworth

Specimen Number	1	2	3	4	5
Mean British Pendulum Number (BPN)	68	70	71	70	70
Slip Resistance Value (SRV)	70				
Classification	P5				

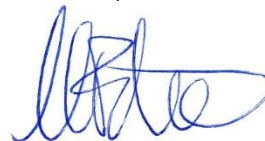
These results apply only to the specimens tested and it is recommended that before selection of flooring or paving materials the effect of service conditions, including maintenance procedures and wear on their slip resistance be checked. Where alternatives are permitted by the standard, the choice of rubber slider used may also influence the test results obtained.

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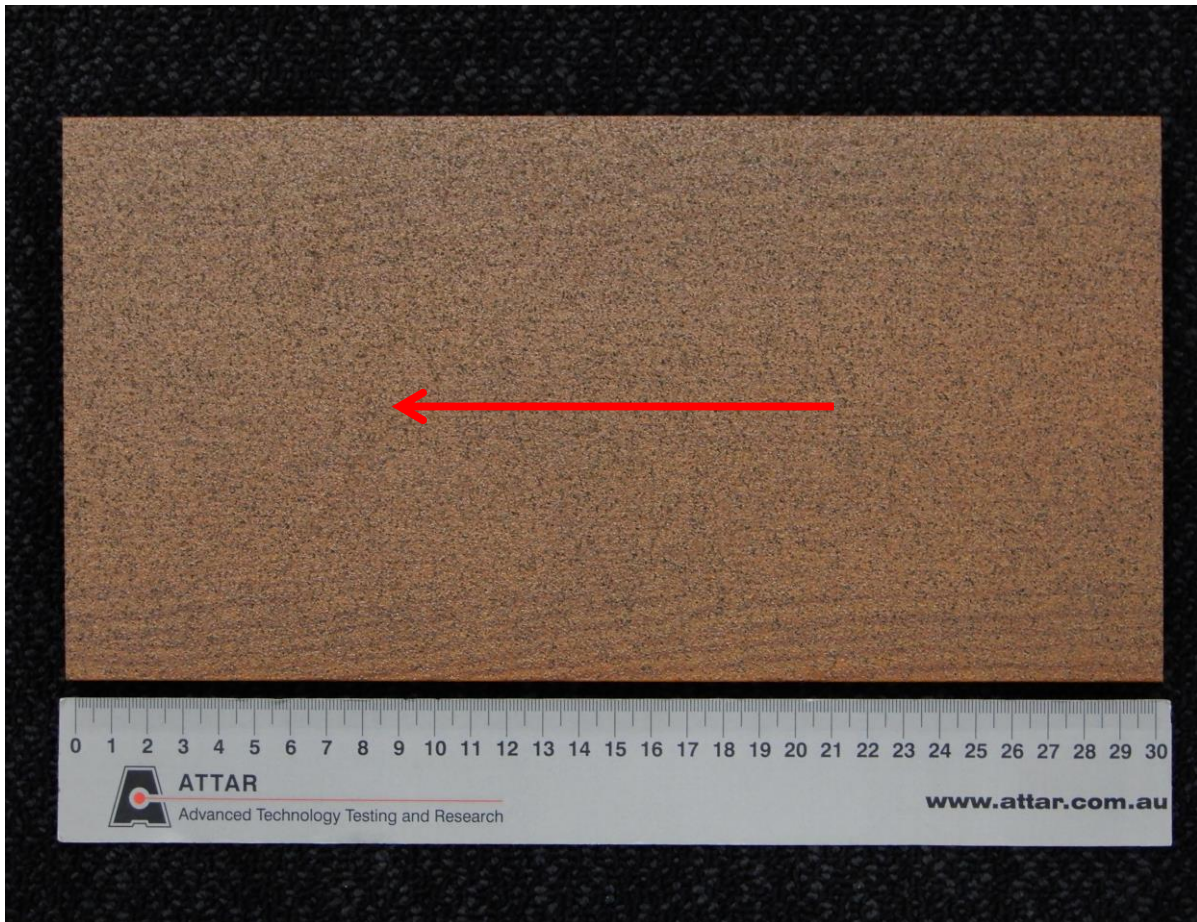


Figure 1: Knotwood Decking Plank (Part # KEDP150)
Arrow indicates direction of testing



CLASSIFICATION CRITERIA – AS 4586 – 2013 **Wet Pendulum Test - Appendix A**

Slip resistance

When this Standard is used for the testing and classification of the slip resistance of carpets (or carpet-like products) in potentially wet locations, the carpet shall be tested using the wet pendulum test method set out in Appendix A of AS 4586, and shall be reported as such.

When this AS 4586 is used for the testing and classification of the slip resistance of carpets in dry locations, the test shall be carried out in the dry condition using the pendulum test method set out in Appendix A of AS 4586, modified in accordance with Paragraph A2, and shall be reported as such.

The 'dry floor friction' test method in Appendix B of AS 4586 is not suitable for heavily profiled surfaces or carpets.

Compliance

The surface shall comply with the stated classification for the test method and test rubber that is nominated and declared by the manufacturer or supplier.

**TABLE 2: CLASSIFICATION OF PEDESTRIAN SURFACE MATERIALS
ACCORDING TO THE AS 4586 WET PENDULUM TEST**

Class	Pendulum SRV (see Note 1)	
	Slider 96	Slider 55
P5	>54	>44
P4	45-54	40-44
P3	35-44	35-39
P2	25-34	20-34
P1	12-24	<20
P0	<12	

NOTES:

- 1 While Slider 96 or Slider 55 rubbers may be used, the test report shall specify the rubber that was used.
- 2 It is expected that these surfaces will have greater slip resistance when dry.
- 3 SDV may be calculated by using the tables that are given in Appendix F of AS 4586, and the minimum SRV that is considered appropriate for a level surface (see examples given in Appendix F of AS 4586).

Means of demonstrating compliance

Pedestrian surfaces that are classified in accordance with Table 2 shall meet the following criteria:

- (a) The mean test results shall be as follows:
 - (i) For the classifications in Table 2, the mean of the test results shall be—
 - (A) within the relevant criteria set out in the table; and
 - (B) each individual result shall be equal to or above the lower limit for the classification or, if below the classification, within the mean of the result minus 20%.

If either criteria is not met, the lot shall be considered to be of lower classification.
- (b) The classification in accordance with Table 2 shall be determined by—
 - (i) selecting and testing at least five specimens at random as specified in Appendices A and B of AS 4586; or
 - (ii) carrying out continuous testing and process control in accordance with AS 3942.
- (c) When testing individual lots, if a particular test fails to produce the expected classification it shall be permissible to—
 - (i) disregard the first sample, resample a minimum of 10 specimens from the whole lot, retest and apply the criteria to the new sample; or
 - (ii) subdivide the lot into smaller lots of different quality, resample, retest and reclassify each of the smaller lots.