

**ATTAR TEST REPORT NUMBER: 14/8445**

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.  
Accredited for compliance with ISO/IEC 17025.  
Accreditation Number: 2735

21 November 2014

**Total Pages: 2****WET PENDULUM SLIP RESISTANCE**

Job No: M14/8445

<b>Prepared for:</b>	Ecoglo International Ltd. 77 Kingsley Street CHRISTCHURCH 8023 NEW ZEALAND					
<b>Attention:</b>	Mark Watson					
<b>Test Site:</b>	ATTAR, Unit 1, 64 Bridge Road, Keysborough.					
<b>Test Date:</b>	20 November 2014					
<b>Test Specimens, Size &amp; Quantity:</b>	Ecoglo N3-070 contrast strip stair nosing, 150x51 mm, 15 off supplied. Refer to Figure 1.					
<b>Sampling &amp; Direction of Testing:</b>	Sampling conducted by client. Testing conducted perpendicular to profiled pattern (direction of pedestrian movement on stair descent). Refer to Figure 1.					
<b>Test Personnel:</b>	Marcus Braché					
<b>Preparation:</b>	Stair nosing strips fixed to plywood board. Washed with water and methylated spirits, rinsed with water, then dried.					
<b>Fixed/Unfixed:</b>	Fixed.					
<b>Air Temperature:</b>	22°C					
<b>Test Equipment:</b>	Munro Stanley Skid Resistance Tester (Pendulum) Serial Number 0320, Calibrated 16/10/2013.					
<b>Test Standard:</b>	AS 4586: 2013 Slip resistance classification of new pedestrian surface materials – Appendix A.					
<b>Slider Rubber:</b>	Slider 96 Batch No. #53 prepared on P400 & 3µm lapping film.					
<b>Classification Criteria:</b>	Refer to Classification Criteria, attached as Appendix 1.					
<b>British Pendulum Number</b>	<b>Specimen Number</b>					<b>SRV</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
	81	86	81	83	80	82
<b>Classification:</b>	<b>P5</b>					

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.

**NOTE:** Any specimens supplied will be disposed of in two (2) months time, unless otherwise instructed.

**ATTAR**

Marcus Braché  
Senior Engineering Technician  
Approved Signatory

This report may not be reproduced except in its entirety.

**Page 1 of 2**

**ATTAR TEST REPORT NUMBER: 14/8445**

21 November 2014

**Total Pages: 2**



**Figure 1:** Ecoglo N3-070 contrast strip.  
Highlighted area and arrow indicates contact area and test direction.



## Changes to Slip Resistance Australian Standards – 2013

The Australian Standards for slip resistance of pedestrian surfaces have recently been under revision by Standards Australia Committee BD-094. New revisions of these Standards have been published on 28 June 2013:

AS 4586 - 2013 *Slip resistance classification of new pedestrian surface materials*, now supersedes AS/NZS 4586 - 2004.

AS 4663 - 2013 *Slip Resistance measurement of existing pedestrian surfaces*, now supersedes AS/NZS 4663 - 2004.

A number of minor changes have been throughout both Standards, however the Wet Pendulum Test Method has had the most significant change of all the test methods.

The 2013 revision of AS 4586 & AS 4663 incorporates an additional requirement in the Wet Pendulum Test Method for preparing rubber slider test feet with 3 micron lapping film. Research has shown that when a rubber slider is prepared this way, it is a closer representation of a worn and polished heel and may best reflect the lower slip resistance attributable to the contact of two smoother surfaces under water-wet conditions. Adoption of the lapping film preparation to condition the slider enables more sensitive differentiation between potentially slippery surfaces than was previously the case, and as such, will cause some pedestrian surfaces to provide a lower slip resistance test result than what would have been obtained if tested according to the 2004 version of AS/NZS 4586 or AS/NZS 4663. This is likely to have the biggest impact on smooth flooring materials such as glazed/polished tiles, sealed terrazzo, sealed/polished natural stone, polished timber, vinyl, etc.

As the changes to new Wet Pendulum Test Method will potentially change the classifications of some flooring products, a new classification system has been introduced to clearly identify which revision of the Standard it was tested to, AS/NZS 4586 – 2004 or AS 4586 – 2013. The 2004 version used V, W, X, Y or Z Classifications which are no longer being used. The 2013 version of AS 4586 uses the following classification system:

### CLASSIFICATION OF PEDESTRIAN SURFACE MATERIALS ACCORDING TO THE AS 4586 WET PENDULUM TEST

Class	Pendulum SRV	
	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	

The Dry Floor Friction Test Method classifications have also changed in AS 4586 – 2013. The 2004 version used F or G Classifications which are no longer being used. The 2013 version of AS 4586 uses the following classification system:

### CLASSIFICATION OF PEDESTRIAN SURFACE MATERIALS ACCORDING TO THE DRY FLOOR FRICTION TEST

Classification	Floor friction tester mean value
D1	≥0.40
D0	<0.40

Another significant change is the removal of the interpretation of the slip resistance test results from AS 4663 - 2013. Previously AS/NZS 4663 – 2004 interpreted the test results into one of a number of categories and reported the *notional contribution of the floor surface to the risk of slipping*. This information will be put into the revised version of HB 197 (still yet to be published), and is referenced in AS 4663 2013. In the interim ATTAR will be using the existing Table 2 from HB 197 – 1999 *An Introductory Guide to the Slip Resistance of Pedestrian Surface Materials* for the interpretation of Wet Pendulum test results and Table 2 from AS/NZS 4663 – 2004 for the interpretation of Dry Floor Friction test results.