



AS4586:2013  
**SLIP RESISTANCE CLASSIFICATION OF  
NEW PEDESTRIAN SURFACE  
MATERIALS**

APPENDIX A - WET PENDULUM TESTING

**AUSTRALIAN SLIP CLASSIFICATION  
TEST REPORT**

*Report Prepared For:*

Belgotex Floorcoverings Australia

*Sample Tested:*

Refined Blackbutt, Grey Vinyl 1524x228x2.5mm

*Report Issued:*

12/10/2023

*Page:*

1 of 6





AS4586:2013 - APPENDIX A

# SLIP RESISTANCE CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIALS

Client Information:

Test Facility Information:

Company Name: **Belgotex Floorcoverings Australia**  
Address: U17/2-6 Focal Avenue,  
Coolum Beach QLD 4573

Test Facility: **Australian Slip Testing HQ**  
Address: PO Box 184,  
Ashgrove QLD 4060

Client Name: Andy Muckert  
Contact: 0438 637 443

Technician: B. Yarham  
Contact: 0405 042 814

Test Environmental Details:

Pre-Test Details:

Environment: Internal Dry Area  
Weather: Fine  
Temperature: 23 °C  
Slope in Degrees: N/A  
Sample Cleaned: Wiped Clean with Water

Sample Fixed: Unfixed  
Direction of Test: Against Surface Grain  
Surface Profile: Textured  
Slider Type: Slider 96  
Instrument Serial #: W1020

Sample Details

- 1 x Refined Blackbutt, Grey Vinyl Plank, Sample Size 1524x228x2.5mm
- 1 x Refined Blackbutt, Grey Vinyl Plank, Sample Size 1524x228x2.5mm
- 1 x Refined Blackbutt, Grey Vinyl Plank, Sample Size 1524x228x2.5mm
- 1 x Refined Blackbutt, Grey Vinyl Plank, Sample Size 1524x228x2.5mm
- (tested in 5x locations in varying directions)

Slider Conditioning

Mean Test Values in BPN

Slope Design Value

P400 Paper: 91	Test Set #1	34
	Test Set #2	38
	Test Set #3	35
	Test Set #4	37
	Test Set #5	35
<b>SRV:</b>		<b>36</b>

Maximum Slope Design Value when WET:	N/A
Maximum Slope Design Value when DRY:	N/A

AUSTRALIAN SLIP CLASSIFICATION

Slip Resistance Value in BPN: **36**

Classification: **P3**



Disclaimer & Accreditation

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 direct supervision. The results provided in this report are representative of the tested samples but may not reflect the entire population. Australian Slip Testing Pty Ltd 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. Australian Slip Testing Pty Ltd will not be responsible for any decisions or actions based on the information contained herein. This report remains the exclusive property of Australian Slip Testing. The unauthorised reproduction of this report is strictly prohibited.

Accredited for compliance with ISO/IEC 17025 - Testing. NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, calibration, and inspection reports.

Signatory: Ben Yarham





# AUSTRALIAN SLIP TESTING

## NATIONAL CONSTRUCTION CODE (NCC) COMPLIANCE GUIDE

### Learning About Results Interpretation

There are six levels of classification to achieve with the wet pendulum skid tester. These classifications are known as "P" classifications, with "P" standing for Pendulum. **P0** is the lowest classification and **P5** is the highest level of classification. The classification levels correspond directly with mean **BPN** (British Pendulum Number) as shown in the table below.

This is **Table 2** (below-right). **Table 2** outlines how the classification system works by referencing the **Pendulum SRV** against the classification range outlined in **AS4586**. This outlines the differences you can expect to see using each type of rubber slider on the classification range.

Key Note	TABLE 2 CLASSIFICATION OF PEDESTRIAN SURFACE MATERIALS ACCORDING TO THE AS 4586 WET PENDULUM TEST		
	Classification	Pendulum SRV	
		Slider 96	Slider 55
There are two parts to results interpretation ( <b>Table 3A &amp; Table 3B</b> ) and you will need to decide which best suits your particular application.  First, lets look at <b>Table 3A</b> presented on this page.  <b>Table 3A</b> is used to classify surfaces of a new build. All existing surfaces should be referenced against <b>Table 3B</b> where the <b>NCC</b> does not apply.	P5	> 54	> 44
	P4	45 - 54	40 - 44
	P3	35 - 44	35 - 39
	P2	25 - 34	20 - 34
	P1	12 - 24	< 20
	P0	< 12	-

### Do My Results Meet NCC Requirements?

Use the table below (**Table 3A**) to compare your reported results.

For example, if a ramp with a 3° gradient (tested wet) has a reported classification of **P4**, then yes. The result meets NCC requirements.

TABLE 3A MINIMUM WET PENDULUM TEST CLASSIFICATIONS THAT ARE DEEMED TO SATISFY THE BUILDING APPLICATIONS IN THE NATIONAL CONSTRUCTION CODE

Location	Wet Pendulum Test Classification
<b>Stair Treads and Stairway Landings in Buildings - NCC Volumes 1 - 2</b>	
1. Stair treads and a stairway landing (when dry)	P3
2. Stair treads and a stairway landing (when wet)	P4
<b>Nosings for Stair Treads and Landings in Public Buildings - NCC Volumes 1 - 2</b>	
1. Dry stair tread, a stair non-skid nosing strip and a stairway landing	P3
2. Wet stair tread, a stair non-skid nosing strip and a stairway landing	P4
<b>Ramps in Buildings - NCC Volumes 1 - 2</b>	
1. Ramps not steeper than 1:14 (4.1° degrees) gradient - when dry	P3
2. Ramps not steeper than 1:14 (4.1° degrees) gradient - when wet	P4
3. Ramps steeper than 1:14 (4.1° degrees) up to but not steeper than 1:8 (7.1° degrees) - when dry	P4
4. Ramps steeper than 1:14 (4.1° degrees) up to but not steeper than 1:8 (7.1° degrees) - when wet	P5

### Frequently Asked Questions

#### 1). How do I demonstrate NCC compliance?

a). NCC compliance is demonstrated by achieving the values set out in **Table 3A** for either the wet pendulum test or the oil-wet inclining ramp test. It is not necessary to meet both criteria. The deemed-to-satisfy (DTS) provisions set out in Volume One of the BCA apply to ramps steeper than 1:14, treads, landing surfaces or nosings or landing edge strips. In Volume Two of the BCA, the deemed-to-satisfy provisions apply to tread surfaces and nosing strips. The slip-resistance classifications that have NCC deemed-to-satisfy status are set out in **Table 3A**.

#### 2). What are the NCC slip testing requirements?

a). The DTS Provisions in Volumes One and Two of the NCC now require: Stairway treads to have:

- A surface with a slip-resistance classification not less than that listed in **Table 3A**, when tested in accordance with **AS 4586**; or
- A nosing strip with a slip-resistance classification not less than that listed in **Table 3A**, when tested in accordance with **AS 4586**.

Ramps to have:

- A floor surface with a slip-resistance classification not less than that listed in **Table 3A**, when tested in accordance with **AS 4586**.

Landings to have:

- A surface with a slip-resistance classification not less than that listed in **Table 3A**, when tested in accordance with **AS 4586**; or
- A strip at the edge of the landing with a slip-resistance classification not less than that listed in **Table 3A**, when tested in accordance with **AS 4586** and where the edge leads to a flight below.

#### 3). What type of slider should be used for testing?

a). Australian Slip Testing uses both Slider 96 and Slider 55 for various surfaces. Slider 55 has been traditionally used for outdoor surfaces and wet barefoot surfaces (shower areas, pools etc.) Slider 96 was developed to replace Slider 55 for testing smoother indoor surfaces, as it provides greater discrimination between such internal surfaces. Both slider types can be used on all surfaces and their use is at the discretion of the client after consultation with the testing technician to their preference of slider material to be used.

### References

Table 3A - HB198:2014 - Guide to the specification and testing of slip resistance of pedestrian surfaces. *Standards Australia*.

Table 2 - AS4586:2013 - Slip resistance classification of new pedestrian surface materials. *Standards Australia*.

### Disclaimer

This information is intended as a guide only. Please consult the referenced publications for further information regarding measurement results and recommendations.



# AUSTRALIAN SLIP TESTING

## WET PENDULUM TEST RESULTS GUIDE FOR NON-NCC APPLICATIONS

### Learning About Results Interpretation

There are six levels of classification to achieve with the wet pendulum skid tester. These classifications are known as "P" classifications, with "P" standing for **Pendulum**. **P0** is the lowest classification and **P5** is the highest level of classification. The classification levels correspond directly with mean BPN (British Pendulum Number) as shown in Table 2.

This is Table 2 (below). Table 2 outlines how the classification system works by referencing the Pendulum SRV against the classification range outlined in AS4586. This outlines the differences you can expect to see using each type of rubber slider on the classification range.

### "Area" Definitions That Apply to Tables 3A and 3B

**Dry Area:** Those areas in which appropriate control measures ensure an area remains dry and clean when in use.

**Transitional Area:** Those areas that are intended to be kept dry such as by the provision of design features (awnings, drains, mats, airlocks, etc.) appropriate to the physical location, climate and general exposure to water, as maintained in a dry and clean condition by the facilities manager.

**Wet Area:** Those areas that are not defined as a dry area or transitional area, which may be either constantly or intermittently wet or otherwise contaminated.

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

Classification	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	-

#### Notes to Table 3B

**Note 1).** The slip resistances of pedestrian surface materials set out in **Table 3B** are intended as guidance in the context of design for pedestrian safety, taking account other factors including abnormal wear, maintenance, abnormal contamination, the presence (or otherwise) of water, or other lubricants, the nature of the pedestrian traffic (including age, gait and crowding), the footwear (or lack thereof), slope, lighting, and handrails.

**Note 3).** The minimum classification listed in **Table 3B** is **P1**. It is inappropriate for **Table 3B** to list the lower classification, **P0** since there is no lower limit on classification **P0**. Notwithstanding, some smooth and polished floor surfaces, which do not achieve classification **P1**, may be considered to provide a safe walking environment for normal pedestrians walking at a moderate pace, provided the surface is kept clean and dry; however, should these surfaces become contaminated by either wet or dry material, or be used by pedestrians in any other manner, then they may become unsafe. Therefore, the type of maintenance, the in-service inspection of floors, other environmental conditions, and use should be taken into account when selecting such products.

#### References

Table 3B - HB198:2014 - Guide to the specification and testing of slip resistance of pedestrian surfaces. *Standards Australia*.

Table 2 - AS4586:2013 - Slip resistance classification of new pedestrian surface materials. *Standards Australia*.

#### Disclaimer

This information is intended as a guide only. Please consult the referenced publications for further information regarding measurement results and recommendations.

**TABLE 3B WET PENDULUM TEST CLASSIFICATIONS FOR APPLICATIONS WHERE THE NCC DOES NOT REQUIRE SLIP RESISTANCE**

Location	Classification
<b>External Pavements and Ramps</b>	
1. External ramps including sloping driveways, footpaths etc. steeper than 1:14 (4.1 °)	P5
2. External ramps including sloping driveways, footpaths etc. under 1:14 (4.1 °), external sales, (eg. Markets), external car park areas, external colonnades, walkways, pedestrian crossings, balconies, verandas, carports, driveways, courtyards and roof decks	P4
3. Undercover car parks	P3
<b>Hotels, Offices, Public Buildings, Schools and Kindergartens</b>	
1. Entries and access areas including...	<b>WET AREA</b> P3 <b>TRANSITIONAL AREA</b> P2 <b>DRY AREA</b> P1 (see Note 3)
hotels, offices, public buildings, schools, kindergartens, internal lift lobbies and common areas of public buildings	
2. Toilet facilities in offices, hotels and shopping centres	P3
3. Hotel apartment bathrooms, ensuites and toilets	P2
4. Hotel apartment kitchens and laundries	P2
<b>Loading Docks, Commercial Kitchens, Cold Stores, Serving Areas</b>	
1. Loading docks under cover and commercial kitchens	P5
2. Serving areas behind bars in public hotels and clubs, cold stores and freezers	P4
<b>Supermarkets and Shopping Centres</b>	
1. Fast food outlets, buffet food servery areas, food courts and fast food dining areas in shopping centres	P3
2. Shop and supermarket fresh fruit and vegetable areas	P3
3. Shop entry areas with external entrances	P3
4. Supermarket aisles (except fresh food areas)	P1 (see Note 3)
5. Other separate shops inside shopping centres - <b>WET</b>	P3
6. Other separate shops inside shopping centres - <b>DRY</b>	P1 (see Note 3)
<b>Swimming Pools and Sporting Facilities</b>	
1. Swimming pool ramps and stairs leading to water	P5
2. Swimming pool surrounds and communal shower rooms	P4
3. Communal change rooms	P3
4. Undercover concourse areas of sports stadiums	P3
<b>Hospitals and Aged Care Facilities</b>	
1. Bathrooms and ensuites in hospitals and aged care facilities	P3
2. Wards and corridors in hospital and aged care facilities	P2



AS4586:2013

# SLIP RESISTANCE CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIALS

Page #: 5 of 6

SAMPLE PHOTO



Refined Blackbutt, Grey Vinyl 1524x228x2.5mm





## END OF TEST REPORT

Thank you for choosing us!

We have loved working with you and sincerely hope you've enjoyed your experience with us too.

We humbly ask you to leave us a review via Google as your feedback is important to us.

It helps us grow and serve you better.

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