



*Reduce Your Risk!*<sup>®</sup>

**Independent Slip Testing Services**

GLOBAL PRODUCT CLASSIFICATION

# TEST REPORT

SLIP RESISTANCE CLASSIFICATION OF  
NEW PEDESTRIAN SURFACE MATERIALS

AS 4586-2013

Appendix A - Wet Pendulum Testing

*Prepared For:*

Dasso Group

*Product Description:*

Timber Decking, Brown, 45x14cm

*Test Date:*

24-07-2020

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## TEST REPORT- Wet Pendulum Slip Resistance Classification (Australian Standard)

**Report Prepared for:** Dasso Group  
Linpu Town, Xiaoshan District Hangzhou  
China, 311251

**Page #: 1 of 1**  
**Program #: 8005**

**Test Date:** 24-07-2020  
**Test Site:** Independent Slip Testing Services- Slip Resistance Testing Facility (Lota HQ QLD)  
**Testing Technician:** M.Logan  
**Testing Instrument:** Pendulum Skid Tester with Slider 96 (4S) rubber  
Testing Instrument Serial #: SK1105 (W1)

### TESTING SPECIMEN DESCRIPTION, SIZE, COLOUR, TYPE, & COATING (if applicable)

1. 1 x Timber Decking, Brown, Sample Size 45x14cm
2. 1 x Timber Decking, Brown, Sample Size 45x14cm
3. 1 x Timber Decking, Brown, Sample Size 45x14cm
4. 1 x Timber Decking, Brown, Sample Size 45x14cm
5. 1 x Timber Decking, Brown, Sample Size 45x14cm

<b>Surface Condition:</b>	Textured	<b>Cleaning:</b>	Tested as received
<b>Fixed/ Unfixed:</b>	Unfixed	<b>Rz Mean:</b>	n/a
<b>Environmental Conditions:</b>	Air conditioning	<b>Air Temp:</b>	24 Deg.C
<b>Direction of Test:</b>	As indicated on underside of sample	<b>Slope:</b>	n/a

### AS 4586-2013

#### INTERPRETATION OF THE WET PENDULUM RESULTS

Classification	Pendulum mean BPN Slider 96 (4S) rubber
P5	>54
P4	45-54
P3	35-44
P2	25-34
P1	12-24
P0	<12

### TEST RESULTS

Specimen	#1 Result:	49 BPN	Slider condition (P400):	83 BPN
	#2 Result:	45 BPN	Slider condition (Lapping):	59 BPN
	#3 Result:	45 BPN	Temperature adjustment:	N/A
	#4 Result:	49 BPN	Carpet surface tested dry:	N/A
	#5 Result:	49 BPN		

### CLASSIFICATION

CLASSIFICATION	PENDULUM MEAN BPN (4S rubber)
<b>P4</b>	<b>47</b>

The mean results of the five specimens is reported (rounded to nearest whole number)

^ An individual result both below the result classification and below the mean result minus 20% shall be considered of lower classification

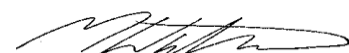
Maximum Slope Design Value (when dry):	4 deg
Maximum Slope Design Value (when wet):	N/A

^NCC Code provides reference for ramps up to 1:8

#### DISCLAIMER:

ISTS accepts no civil liability or responsibility for any actions whatsoever that may arise as a result of the tests and the publication and issue of this test report. The test report is intended for viewing purposes solely for the named recipient identified above. The slip test report remains the property of ISTS. This report contains privileged and confidential information. The unauthorised reproduction

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Signatory: Mick Walton



Testing was carried out using the Wet Pendulum Test Method  
in accordance with Australian Standard AS 4586-2013 Appendix A

## WET TEST RESULTS INTERPRETATION GUIDE (Part 1)- NATIONAL CONSTRUCTION CODE (AUSTRALIAN STANDARD)

### INTERPRETING WET TEST RESULTS

#### How to interpret your wet test report...

Wet test results offer six possible outcomes- classification 'P0', 'P1', 'P2', 'P3', 'P4' or 'P5'.

The classification 'P0' reflects a lesser slip resistant surface, while 'P5' classification reflects the greatest slip resistance classification.

There are two parts to this interpretation guide- Firstly the 'National Construction Code requirements', and secondly 'Other Particular Applications' recommendations.

For the 'Global Product Classification' test results refer additional #Note below.

**Step 1.** Note the test location described in the left side column of your report, and the corresponding test result 'P' classification achieved (listed in the far right side column)

**Step 2.** From this interpretation guide, identify the most appropriately related location description described in either 'TABLE 3A' (Part 1) or 'TABLE 3B' (Part 2). Note the 'P' classification listed to the right of this description.

**Step 3.** If the test result classification listed meets (or exceeds) the related 'P' classification from 'TABLE 3A' or 'TABLE 3B', the test surface is meeting the relevant requirement.

**#Note.** For 'Global Product Classification' test reports the 'TABLE 3A' or 'TABLE 3B' descriptions assist in identifying the product's suitability for various applications.

**\*TABLE 2** Classification of Pedestrian Surface Materials according to the AS 4586-2013 wet pendulum test

CLASSIFICATION	Pendulum* mean BPN	
	Four S rubber ( Slider 96 )	TRL rubber ( 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	-

### TREATMENT OPTIONS

For test results that achieve a result below recommendations, the following treatment options are available to increase slip resistance and Reduce Your Risk!

*While ISTS is solely an audit service, following is a short list of common types of treatments we see our clients using to improve the slip resistance of various pedestrian surface materials.*

<b>Cleaning procedures</b>	Minimising detergent residue build up or other contaminants.
<b>Acid etching</b>	Increasing surface texture.
<b>Coatings and sealers</b>	Surface coatings and penetrative types.
<b>Surface texture</b>	Coatings, etchants, sandblasting, shot blasting, etc.
<b>Surface replacement</b>	May be the most cost effective option in some instances.

*An internet search for 'flooring treatments' will identify surface treatment professionals in your local area. ISTS recommends sourcing a number of detailed proposals when considering treatments, outlining expected slip resistance improvements, visual changes, clean ability and life expectancy.*

### NATIONAL CONSTRUCTION CODE COMPLIANCE CLASSIFICATIONS

Minimum wet pendulum test result classifications to meet National Construction Code requirements.

#### \* TABLE 3A

Location	Classification
<b>Stair Treads and Stairway Landings in Buildings</b> - Covered by NCC Volumes 1 - 2	
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 Buildings</b> - Covered by NCC Volumes 1 - 2	
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</b> - Covered by NCC Volumes 1 - 2	
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 (4.1degrees) 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

### ADDITIONAL NOTES & REFERENCES

#### References

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

\*Table 2- AS 4586-2013 "Slip resistance classification of new pedestrian surface materials".

*nb. The information provided is intended as a guide only, consult the referenced publications for further information in regards to measurement results and recommendations.*

## WET TEST RESULTS INTERPRETATION GUIDE (Part 2)- OTHER APPLICATIONS...NON NCC (AUSTRALIAN STANDARD)

**\* TABLE 3B** Minimum wet pendulum test result classifications for other applications where the NCC does not apply.

Location	Classification
<b>External Pavements and Ramps</b>	
1. External ramps including sloping driveways, footpaths etc. steeper than 1 in 14 (4.1°)	P5
2. External ramps including sloping driveways, footpaths, etc., under 1:14 (4.1°), external sales areas (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... hotels, offices, public buildings, schools, kindergartens, internal lift lobbies and common areas of public buildings	Wet area P3 Transitional area P2 Dry area P1 (see Note 3)
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 vegetables area	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 - wet	P3
6. Other separate shops inside shopping centres - dry	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 changing 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

**\*TABLE 2** Classification of Pedestrian Surface Materials according to the AS 4586-2013 wet pendulum test

Classification	Pendulum* mean BPN	
	Four S rubber ( Slider 96 )	TRL rubber ( Slider 55 )
<b>P5</b>	<b>&gt;54</b>	<b>&gt;44</b>
<b>P4</b>	<b>45-54</b>	<b>40-44</b>
<b>P3</b>	<b>35-44</b>	<b>35-39</b>
<b>P2</b>	<b>25-34</b>	<b>20-34</b>
<b>P1</b>	<b>12-24</b>	<b>&lt; 20</b>
<b>P0</b>	<b>&lt;12</b>	<b>-</b>

**P1 (see Note 3)**

**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 materials, 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.

**ADDITIONAL NOTES & REFERENCES**

**References**

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

\*Table 2- AS 4586-2013 "Slip resistance classification of new pedestrian surface materials".

*nb. The information provided is intended as a guide only, consult the referenced publications for further information in regards to measurement results and recommendations.*





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GLOBAL PRODUCT CLASSIFICATION

## TEST PRODUCT IMAGE

**Product Description:** Timber Decking, Brown, 45x14cm

**Test Date:** 24-07-2020



Accreditation No. 14967

**...Considering pedestrian surface enhancements,  
or developing your property?**



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**Independent Slip Testing Services**

GLOBAL PRODUCT CLASSIFICATION

地板产品的抗滑性测量

If you are selecting, purchasing or installing pedestrian surface materials, an independent, accredited classification is a useful tool providing confidence to all stakeholders the product will perform as specified.

Independent Slip Testing Services is the global leader in accredited slip resistance measurement and classification of pedestrian surface materials prior to installation.

..see the ISTS 'GPC Results Interpretation Booklet' for guidance on pedestrian surface product selection.



**TILES PAVERS STONE TIMBER VINYL RUBBER METAL TAPES COATINGS GRATINGS  
CONCRETE CARPETS STEP-NOSINGS TACTILES MOSAICS GLASS**

Contact us any time if you have questions.



Slip Testing

*Recommended Slip Classifications  
National & Global Guides  
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**END OF TEST REPORT**