SLIP RESISTANCE GUIDELINES FOR PEDESTRIAN SURFACES

National Construction Code (NCC) + SA HB 198: 2014 HANDBOOK

Guide to specification and testing of slip resistance of pedestrian surfaces



Unit 6, 344 Lorimer St. Port Melbourne VIC 3207 1300 733 000

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5.2 Classifications for particular applications

Table 3B provides guidance for pedestrian surfaces for particular applications. The values represent a consensus view of Committee BD-094, although not all experts agree on all values. The values in Table 3B have been determined by the following process:

- Applications and corresponding values were selected initially from HB 197:1999
- A subcommittee of Committee BD-094 modified some applications and values, and these were further modified during the review process.
- The contents of Table 3B are subject to further review by Committee BD-094, in its ongoing project to provide guidance on specifying and testing for slip resistance.

For completeness, Table 3A is also reproduced here from the previous Section.

There are some fundamental differences in the purpose and nature of Tables 3A and 3B

- Table 3A applications and values have been determined by the Australian Building Codes Board for use in regulations based on the NCC. It provides the minimum wet pendulum test or oil inclining platform test classifications that are deemed-to-satisfy specific applications in buildings covered by the NCC. These values may be used as acceptance criteria in a range of situations, including those where the building incorporates only the minimum regulated NCC requirements for handrails, lighting and the like.
- Table 3B applications and values have been determined by Committee BD-094 for use in applications that are not regulated by the NCC. It provides wet pendulum test or oil platform test classifications for applications where the NCC does not specifically require slip resistance. The applications listed are some of those for which slip resistance is warranted for reasons other than NCC compliance. The use of these values should be in the context of design, which also considers 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. NCC requirements for handrails, lighting and the like.

TABLE 3A MINIMUM WET PENDULUM TEST OR OIL-WET INCLINING PLATFORM CLASSIFICATIONS THAT ARE DEEMED-TO-SATISFY THE BUILDING APPLICATIONS IN THE NCC

Location	Wet Pendulum Test	Oil-wet inclining platform
Stair Treads and Stairway Landings in Buildings Covered by NCC Volumes One and Two		
Stair treads and a stairway landing (when dry) Stair treads and a stairway landing (when wet)	P3 P4	R10 R11
Nosings for Stair Treads and Stairway Landings in Buildings Covered by NCC Volumes One and Two		
Dry stair tread, a stair non-skid nosing strip and a stairway landing Wet stair tread, a stair non-skid nosing strip and a stairway landing	P3 P4	
Ramps in Buildings Covered by NCC Volumes One and Two		
Ramps not steeper than 1:14 gradient (when dry) Ramps not steeper than 1:14 gradient (when wet) Ramps steeper than 1:14 up but not steeper than 1:8 (when dry) Ramps steeper than 1:14 up but not steeper than 1:8 (when wet)	P3 P4 P4 P5	R10 R11 R11 R12

NOTE: NCC compliance is demonstrated by achieving the values set out in this Table for either the wet pendulum test or the oil-wet inclining ramp test. It is not necessary to meet both criteria.

TABLE 3B WET PENDULUM TEST OR OIL-WET INCLINING PLATFORM CLASSIFICATIONS FOR APPLICATIONS WHERE THE NCC DOES NOT REQUIRE SLIP RESISTANCE

Location	Wet Pendulum Test	Oil-wet inclining platform
External Pavements and Ramps		
External ramps including sloping driveways, footpaths etc. Steeper than 1 in 14 External ramps including sloping driveways, foot paths etc., under 1:14,	P5	R12
external sales areas (eg. Markets), external carpark areas, external colonnades, walkways, pedestrian crossings, balconies, verandas, carports, driveways, courtyards and roof decks.	P4	R11
Undercover car parks	P3	R10
Hotels, Offices, Public Buildings, Schools and Kindergartens		
Entries and access areas including hotels, offices, public buildings, schools, kindergartens, common areas of public buildings, internal lift lobbies.		
Wet Area Transitional Area Dry Area Toilet Facilities in offices, hotels and shopping centres Hotel apartment bathrooms, en suites and toilets	P3 P2 P1 (see note 3) P3 P2	R10 R9 R9 R10 A
Hotel apartment kitchens and laundries	P2	R9
Supermarkets and Shopping Centres		
Fast food outlets, buffet food servery areas, food courts and fast food dining areas in shopping centres	P3	R10
Shop and supermarket fresh fruit and vegetable areas Shop entry areas with external entrances Supermarket aisles (except fresh fruit areas) Other separate shops inside shopping centres - wet Other separate shops inside shopping centres - dry	P3 P3 P1 (see note 3) P3 P1 (see note 3)	R10 R10 R9 R10 R9
Loading docks, Commercial Kitchens, Cold Stores, Serving areas		
Loading docks undercover and commercial kitchens Serving areas behind bars in public hotels and clubs, cold stores and freezers	P5 P4	R12 R11
Swimming pools and Sporting Facilities		
Swimming pool ramps and stairs leading to water Swimming pool surrounds and communal shower rooms Communal changing rooms Undercover concourse areas of sports stadiums	P5 P4 P3 P3	C B A R10
Hospitals and Aged Care Facilities		
Bathrooms and en suites in hospitals and aged care facilities Wards and corridors in hospital and aged care facilities	P3 P2	B R9

NOTES TO TABLE 3B:

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.

2. The contents of Table 3B are subject to further review by Committee BD-094, in its on-going project to provide guidance on the specification and testing of slip resistance.

3. The minimum classifications listed in Table 3B are P1 and R9. 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 surfaces are 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 in to account when selecting such products.

4. When using the oil-wet inclining platform 'R' classifications, consideration should also be given to the determination and use of volumetric displacement 'V' classifications. In some cases, a specifier may choose either a particular combination of R and V values, or a more severe R value alone. For example, either R10 + V4, or R11.