

know risk

Ansvar Insurance Ltd. Level 18, 303 Collins St Melbourne, Victoria 3000. ABN 21 007 216 506 AFSL 237826
Members of the Ecclesiastical Insurance Group

Steps & Stairs Trip Hazards

Trips often occur when a pedestrian surface exhibits an abrupt incline that is large enough to snag a person's toe or shoe and cause that person to falter and lose balance.

Except as part of a properly constructed stair, the maximum acceptable abrupt incline for areas constructed for pedestrian traffic is 6mm.

Steps & Stairs

The purpose of steps and stairs is to provide access for pedestrians to surfaces that are at different levels.

The greater the difference between levels, the larger the number of stairs required to join the levels. Sometimes the height difference is so low that a single step is all that is required.

Trip Hazard

The distinction as to whether a step or stair is a trip hazard, usually relates to the likelihood that a walker would perceive it to be a step or not. In other words, if the step is not visually conspicuous then it is likely to be a trip hazard, regardless of the difference in height.

Other factors that contribute to steps/stairs being a potential trip hazard are:

1. Finish or covering that may allow steps to blend with surroundings. (e.g. same coloured dark carpet)
2. Variable height, (such as a tapered step), where height between steps is inconsistent
3. Isolated low single step or a single step in a heavy traffic area.

4. Variation in the size of steps, particularly in the height of steps; (Both width and height)
5. Steps in areas where there are visual or other distractions.(e.g. poor lighting)

The Building Code of Australia and Australian Standards AS.1657 specify dimensional requirements for stairs.

In brief, the main requirements are;

Width and angle of slope

Stairways shall be not less than 600mm wide. The angle of slope between the stiles and the horizontal shall be between 26.5 and 45 degrees.

Flights

Shape

Stairways may be constructed in straight flights or in flights curved horizontally.

Straight flights

The number of rises in any flight of stairs shall not exceed 18, and where there is more than one flight, adjacent flights shall be connected by a landing.

Curves stairways

The radius to the centre-line of the stairway shall be not less than 600mm.

Stairs

Rises and Goings

The surface of every tread shall extend across the full width of the stairway and shall be slip-resistant. Rises and goings shall conform to the following dimensions:

Australia

1300 650 540
ansvar.com.au



- a. All rises and all goings, in the same flight of stairs shall be of uniform dimensions within a tolerance of ± 5 mm.
- b. Each rise shall be not less than 150mm and not greater than 215mm.
- c. Each going shall be not less than 215mm and not greater than 305mm.
- d. The tread width shall be not less than the going and there shall be a minimum overlap of 10mm.

Minimum Vertical Clearance

The head clearance shall be not less than 2000mm measured vertically from the nosing of the tread.

Nosing

The nosing should not be such that the edge of the stairs is highlighted, especially where the stairs may be used in a variety of lighting conditions.

Landings

Landings are to be constructed with the following conditions:

- a. The length and width of the landing shall not be less than the width of the stairway.
- b. The landing shall have a minimum vertical clearance of not less than 2000mm.
- c. Every access landing shall provide standing space for at least 600mm clear of cross-traffic or door swing.

Handrailing

Provisions of handrails

Every stairway shall be provided with at least one handrail which shall have a smooth continuous surface throughout the length of each stairway flight. Where the width of the stairway exceeds 1000mm, a handrail shall be provided on each side.

This material is for information purposes only. It is not intended to give specific legal or risk management advice nor are any suggestions, checklists or action plans intended to include or address all possible risk management exposures or solutions.