

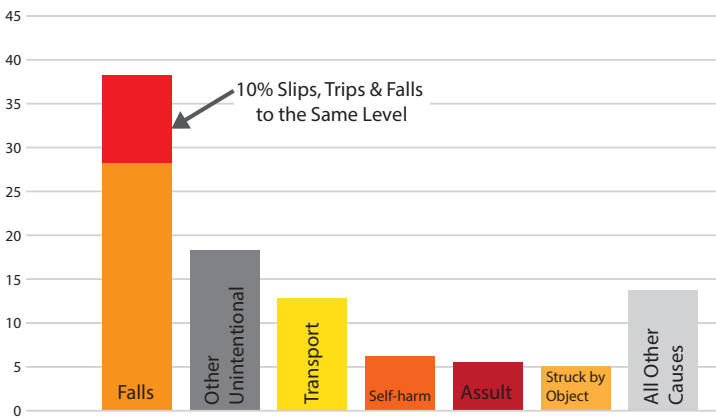


InterSafe
Protecting People

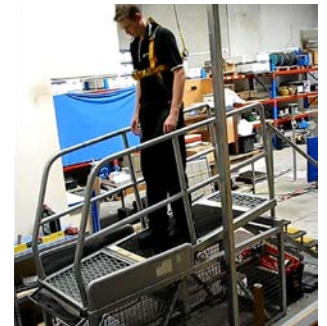
Wet Pendulum Test vs Inclined Platform Test

Used in:
AS 4586 - Slip Resistance Classification of New Pedestrian Surface Materials
AS 4663 - Slip Resistance Measurement of Existing Pedestrian Surfaces
HB 197 - An Introductory Guide to the Slip Resistance of Pedestrian Surface Materials
HB 198 - Guide to the Specification and Testing of Slip Resistance of Pedestrian Surfaces

Slips, trips and falls at the same level are the mechanism of 10% of all accidental injury in Australia resulting in hospital admission. This massive public health problem is only slightly smaller than that associated with from motor vehicle incidents (13% all injury).



Wet Pendulum Test



Inclined Platform Test

Control of floor slip resistance is a critical factor in managing risk of pedestrian slips and falls. Flooring designers, manufacturers, importers, distributors, architects and persons conducting a business or undertaking (PCBUs) are increasingly required to manage risk of pedestrian slips and falls during all phases of the life of the floor surface.

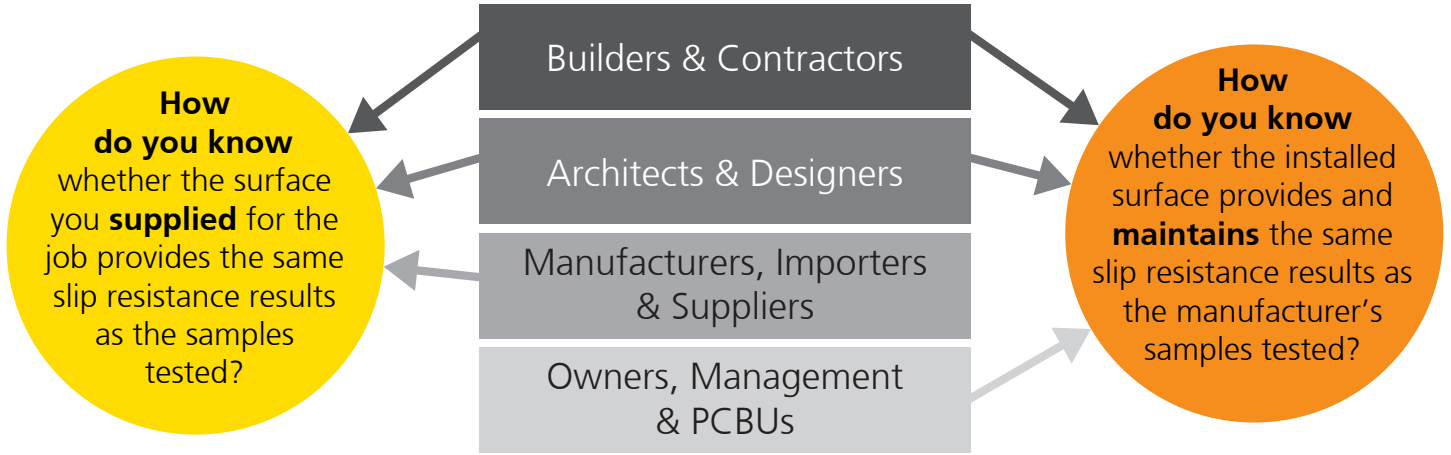
To manage risk there is a need to quantify the slip resistance of floor surfaces during all phases of the floor's life.

The vast majority of slips and falls involve a liquid contaminant. Australian Standards specify two wet slip resistance test methodologies – the Wet Pendulum Test and the Inclining Platform Test (previously known as Oil-wet or Barefoot Ramp Test).

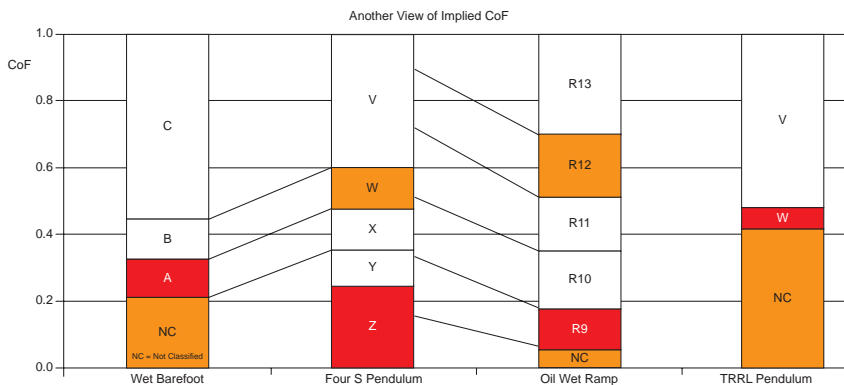
	Wet Pendulum Test Method	Inclined Platform Test Method
Approved test method for measuring slip resistance and classification of new pedestrian surfaces in accordance with Australian Standard AS4586	Yes	Yes
Approved test method for measuring slip resistance of existing pedestrian surfaces in accordance with Australian Standard AS4663	Yes	No
National Construction Code (Building Code of Australia) specifies slip resistance requirements based on this test method	Yes	Limited
Standards Australia Handbooks provide guidance for slip resistance in particular level floor surface applications based on this test method	Yes	Yes
Standards Australia Handbook provides guidance for slip resistance on ramps and sloping floor surfaces based on this test method	Yes	No
Can be used to verify an underfoot surface has been installed in accordance with manufacturers guidelines	Yes	No
Can be used to quantify the effects of wear and tear or cleaning procedures on slip resistance	Yes	No
Application	On-site & Laboratory	Laboratory Only
Suitable for heavily profiled and textured surfaces	Limited	Yes
Suitable for barefoot areas	Limited	Yes
Contaminant used in the test	Water	Oil
Cost of testing	Low	High

Currently the only recognised slip resistance test method that can be used during the lifecycle of a floor surface is the wet pendulum test.

Slip resistance test results based on the Inclining Platform test cannot be used to compare with manufacturing test results based on the wet pendulum test.



The figure below is reproduced from a training course presented by Standards Australia presenting the implied coefficient of friction correlation. While there is no direct correlation between the classifications, Committee BD-094 extrapolated and converted ramp classifications to pendulum classifications. As the pendulum and oil wet ramp tests methods have different test parameters, the conversion of one classification to another will likely be inaccurate. However, there is limited information available in Australia that presents other correlations between the pendulum test results to the oil wet ramp test results.



The most cost effective way to be sure is by conducting a pendulum test (and adhere to your accountability). InterSafe strongly recommends the wet pendulum test as the relevant Australian Standard approved test for measuring slip resistance of new and existing pedestrian floor surfaces.

InterSafe's Experience

InterSafe consultants are qualified engineers and ergonomists and collectively have decades of successful involvement in safety, ergonomics and forensic consulting. We have assisted multinational, national and local businesses. We have exposure with all industry sectors - public and private. We have investigated and analysed in excess of 1,000 slip and fall cases, providing detailed reports submitted as evidence in legal proceedings. As a result we have detailed knowledge and experience relating to slip resistance testing and risk management to prevent slip and fall incidents and are involved in BD-094 Technical Committee for the development of Australian Standards for Slip Resistance.



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