

How good is R12 and what does it mean?

International Best in class slip resistance is currently defined by AS/NZS 4586. AS/NZS 4586 requires 5 tests to be met at a certain level to be classified a “value” which is often summarised as R10, R11, R12. R10 being a minimum slip threshold and R12 being a maximum slip threshold.

NZ SLIP STANDARD AS/NZS 4586

This clause ensures people can move safely into, within and out of buildings. Access routes include the approach to the main entrance of a building, corridors, doors, stairs, ramps and lifts.

It sets out requirements for:

- slip resistance, stair treads, handrails and cross falls
- people with disabilities to carry out normal functions within buildings
- the movement, loading and parking of vehicles.

What are the requirements for a surface to be slip resistant?

The NZ Building Code (1992) gives this instruction on slip resistance: D1.3.3 Access routes shall:
(d) Have adequate slip-resistant walking surfaces under all conditions of normal use.

For surfaces that may become wet (section 2.1.2):

The Acceptable Solution to this D1 section (Access Routes) - D1/AS1 lists two methods for complying with the Building Code:

- a) have an SRV classification of not less than 39 from the wet pendulum test method
- b) Use the materials listed as acceptable wet slip

R-Numbers DIN 51130

The following table show the level of slip risk associate with different R-Numbers as defined by the German Ramp Test and DIN 51330. If a floor is likely to be constantly wet then r13 is best. Only R12 or R13 should be considered for swimming pool surrounds or changing areas. R11 may be suitable for transitional areas of floor i.e. floors that can become wet despite efforts to keep it dry such as the entrance to a shopping mall or dry changing room floor. R10 may be suitable for areas of floor that can normally be kept dry and R9, the lowest value should only be considered for floors that can never become wet or have very few people using them.

DIN51130	R13	R12	R11	R10	R9
Slip Angle	35+	27-35 deg	19-27 deg	10 - 19 deg	6 - 10 deg
SlipAlert Test Value (STV)	< 130	130 - 136	137 - 160	161 - 179	> 180
Wet Slip Risk	Low Risk	Low Risk	Manageable	Manageable	High Risk
Suitable for	Very Wet	Wet Areas	Transitional Areas - can occasionally become wet	Areas kept largely dry	Dry Areas