



Wet area suspended floors



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THE DESIGN, MATERIAL SELECTION AND CONSTRUCTION OF WET AREA FLOORS IS CRITICAL TO THE PERFORMANCE OF A BUILDING.

IF THE WATER IN THESE AREAS is not contained, significant damage can occur to timber framing and wood or wood-based flooring.

Building Code and compliance documents

Building Code clause E3 *Internal moisture performance requirements* state:

- in E3.3.2 that 'Freewater from accidental overflow from sanitary fixtures or sanitary appliances must be disposed of in a way that avoids loss of amenity or damage to household units or other property'
- in E3.3.3 that 'Floor surfaces of any space containing sanitary fixtures or sanitary appliances must be impervious and easily cleaned'
- in E3.3.5 that 'Surfaces of building elements likely to be splashed or become contaminated in the course of the intended use of the building must be impervious and easily cleaned'
- in E3.3.6 that 'Surfaces of building elements likely to be splashed must be constructed in a way that prevents water splash from penetrating behind linings or into concealed spaces'.

Use the right impervious finish

Suitable impervious finishes given in compliance document E3/AS1 to meet the above requirements for floors in splash zones are:

When selecting a suitable wood-based flooring for wet areas, the key requirement is durability.

- integrally waterproof sheet material (for example, polyvinylchloride) with sealed joints
- ceramic or stone tiles having 6% maximum water absorption, waterproof grouted joints, and bedded with an adhesive specified by the tile manufacturer as being suitable for the tiles, substrate material and the environment of use
- cement-based solid plaster or concrete having a steel trowel or polished finish (semi-gloss or gloss paint must be used if a paint finish is required)
- cork tile or sheet sealed with waterproof applied coatings and with sealed joints
- monolithic applied coatings having a polished non-absorbent finish, for example, terrazzo
- a timber or timber-based product such as particleboard sealed with waterproof applied coatings.

Shower areas high risk

In showers, because the demand on the impervious finish is greater, so E3/AS1:

- requires ceramic or stone tile finishes to be

laid on a continuous impervious substrate or membrane

- excludes the use of cork tile or sheet sealed with waterproof and applied coatings and sheet linings finished with vinyl-coated wallpaper, or semi-gloss or gloss coating.
- NZS 3604 Section 4 Durability has, in clause 4.3.4, the requirement that wood-based building components in wet areas such as bathrooms, kitchens, laundries and toilets be protected by an impervious finish or lining with sealed joints.
- Amendment 7 to NZBC Acceptable Solution B2/AS1 modifies sections 109 and 110 of NZS 3602, where maintenance of an impervious finish cannot be assured for plywood and timber flooring.

Wood-based flooring for wet areas

While there are various documents that provide guidance on the type of treatment that is required when forming a suspended framed floor platform in wet areas, none provide concise advice for all options.

The wood-based wet flooring options are then:

- BRANZ-Appraised H3.1 treated reconstituted woodboard
- B2/AS1 amendment to NZS 3602 which requires H3 treated plywood or H1.2 treated solid radiata pine or Douglas fir
- other timber species such as matai or rimu in accordance with Table 1 (1C3) of NZS 3602. ◀