Wet areas – waterproofing

The criteria for waterproofing wet areas within domestic buildings, including minimum requirements for materials, designs and installations, are covered in [AS 3740–2010*Waterproofing of domestic wet areas*](http://infostore.saiglobal.com/store/Details.aspx?ProductID=1438621).

A summary of the standard is provided below; however, it is important to remember that standards are continuously updated and reviewed, and building contractors should be sure they are using the most up-to-date versions at all times.

Members can also [contact Master Builders](http://www.masterbuilders.asn.au/contact-us) for further guidance and advice.

Materials, designs & installation criteria

The criteria for the materials, designs and installation of wet area waterproofing systems are shown in AS 3740, Section 2, *Materials* (Table 2.1).

Materials used are to be either [waterproof or water resistant](http://www.masterbuilders.asn.au/building-and-planning/technical-information/wet-areas-waterproofing#proofresistant) and the design and installation of waterproofing systems must be suitable for the intended application.

The standard outlines various applications according to their level of risk; some examples are provided below.

**High level of risk**

Shower area

The floor is required to be waterproofed and drained (falls between 1:60 and 1:80), walls to be water resistant and junctions and penetrations to be waterproofed.

Bathrooms and laundries

For bathrooms and laundries requiring a floor waste in accordance with the Building Code of Australia, Volume One, the floor must be waterproofed and drained. Junctions and penetrations through the floor are to be waterproofed.

**Medium level of risk**

Bathrooms

Floors of concrete or compressed fibre cement sheet flooring are required to be water resistant and where a floor waste is provided, the floor should be graded to the waste (falls between 1:80 and 1:100). For bathrooms with timber floors, including particleboard plywood and other materials, waterproofing of the whole floor is required. Junctions must also be waterproof.

Areas adjacent to baths & spas

Floors of concrete or compressed fibre cement sheet flooring are required to be water resistant. Timber floors, including particleboard plywood and other materials, require waterproofing of the whole floor. Walls are to be water resistant and junctions to be waterproofed. Any penetrations such as horizontal surfaces around such fixtures are to be waterproof and adjacent vertical surfaces to be water resistant.

**Low level of risk**

Walls adjoining other vessels

Walls adjoining other vessels (e.g. sink, basin, laundry tubs) are to be water resistant and junctions waterproof. Any penetrations such as horizontal surfaces around such fixtures are to be waterproof and adjacent vertical surfaces to be water resistant.

Laundries and WCs

Floors are to be water resistant and where a floor waste is provided the floor shall be graded to the waste. Junctions are to be water resistant.

What is waterproof & water resistant?

**Waterproof materials**

The following materials are deemed waterproof:

* Stainless steel
* Copper
* Waterproof flexible sheet flooring material with sealed joints
* Membranes meeting the requirements of [AS/NZS 4858:2004 *Wet areas membranes*](http://infostore.saiglobal.com/store/Details.aspx?ProductID=386704).

**Water resistant substrates**

The following substrates are deemed water resistant for walls and floors:

**Walls**

* Concrete
* Cement render
* Fibre cement sheeting
* Water resistant plasterboard
* Masonry

**Floors**

* Concrete
* Compressed fibre sheeting
* Fibre cement sheeting supported on a structural floor
* Flooring grade particleboard sheeting
* Structural plywood.

**Water resistant surface materials**

The following surface materials are deemed water resistant for walls and floors:

**Walls**

* Laminated sheet
* Pre-decorated fibre cement sheeting
* Tiles
* Sanitary grade acrylic wall linings

**Floors**

* Tiles
* Water resistant flexible sheet flooring material sealed at joints.

General installation advice

* Usually, where a tile bed is used, the waterproof membrane is to be installed above or below the tile bed.
* All preformed shower bases are to be supported and recessed into the wall to allow the water resistant materials to pass down into the perimeter rebate. This requirement is similar for baths and spas.
* It is a requirement to install perimeter flashings at wall/floor junctions, including doorways.
* When applying bonded membranes to substrates, bond breakers are required at wall/floor, hob/wall junctions and at movement joints.
* Hob construction is to be of masonry, concrete or similar material. Timber is not to be used for hob construction.
* Where doorjambs and architraves do not finish above the floor tiling, the portion of the doorframes and architraves below the floor tiling is to be waterproofed to provide a continuous seal between the perimeter flashing and waterstop.
* Shower screens are to be constructed and installed so as to prevent water escaping from the shower recess. The placement of such screens is to be on the inside of the hob or fixture.