WATERPROOFING DETAILS
SIKA TILE INSTALLATION SYSTEMS
INTERNAL & EXTERNAL AREAS
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DRAWING DETAILS FOR INTERNAL WET AREAS PER AS 3740 [2004]
### TABLE 4.1
GENERAL REQUIREMENTS FOR EXTENT OF APPLICATION

<table>
<thead>
<tr>
<th>Vessels or area where the fixture is installed</th>
<th>Floors and horizontal surfaces</th>
<th>Walls</th>
<th>Wall junctions and joints</th>
<th>Penetrations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shower area</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enclosed and hobbed</td>
<td>Waterproof entire enclosed shower area, including hob (see Figure 4.3(a))</td>
<td>Waterproof to 150 mm min. above the shower floor substrate or 25 mm min. above the maximum retained water level and the remainder to be water resistant to a height of 1800 mm min. from finished floor level (see Figure 4.3(a))</td>
<td>Waterproof internal and external corners and horizontal joints within a minimum height of 1800 mm. above the floor level with a minimum width of 40 mm either side of junction (see Figure 4.3(a))</td>
<td>Seal all penetrations</td>
</tr>
<tr>
<td>Enclosed and hobless</td>
<td>Waterproof entire enclosed shower area including water stop</td>
<td>Waterproof to 150 mm min. above the shower floor substrate and the remainder to be water resistant to a height of 1800 mm min. from finished floor level (see Figure 4.3(a))</td>
<td>Waterproof internal and external corners and horizontal joints within a minimum height of 1800 mm. above the floor level with a minimum width of 40 mm either side of junction (see Figure 4.3(a))</td>
<td>Seal all penetrations</td>
</tr>
<tr>
<td>Enclosed and stepped down</td>
<td>Waterproof entire enclosed shower area including the stepdown</td>
<td>Waterproof to 150 mm min. above the shower floor substrate or 25 mm min. above the maximum retained water level and the remainder to be water resistant to a height of 1800 mm min. from finished floor level (see Figure 4.3(a))</td>
<td>Waterproof internal and external corners and horizontal joints within a minimum height of 1800 mm. above the floor level with a minimum width of 40 mm either side of junction (see Figure 4.3(a))</td>
<td>Seal all penetrations</td>
</tr>
<tr>
<td>Enclosed and preformed shower base</td>
<td>N/A</td>
<td>Water resistant to a height of 1800 mm min. from finished floor level (see Figure 4.3(a))</td>
<td>Waterproof internal and external corners and horizontal joints within a minimum height of 1800 mm. above the floor level with a minimum width of 40 mm either side of junction (see Figure 4.3(a))</td>
<td>Seal all penetrations</td>
</tr>
</tbody>
</table>

(continued)
### TABLE 4.1 (continued)

<table>
<thead>
<tr>
<th>Vessels or area where the fixture is installed</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Unclosed</td>
<td>Waterproof entire shower area (see Figure 4.3(b))</td>
<td>Waterproof to 150 mm min. above the shower floor substrate or 25 mm min. above the maximum retained water level and the remainder to be water resistant to a height of 1800 mm min. from finished floor level (see Figure 4.3(b))</td>
<td>Waterproof internal and external corners and horizontal joints to a minimum height of 1800 mm. above the floor level with a minimum width of 40 mm either side of junction (see Figure 4.3(b))</td>
<td>Seal all penetrations</td>
</tr>
<tr>
<td>Areas outside the shower area for concrete and compressed fibre cement sheet flooring</td>
<td>Water resistant to entire floor</td>
<td>N/A</td>
<td>Waterproof all wall to floor junctions, where a flashing is used the horizontal leg shall be a minimum of 40 mm</td>
<td>N/A</td>
</tr>
<tr>
<td>Areas outside the shower area for timber floors including particleboard, plywood and other flooring materials</td>
<td>Waterproof entire floor</td>
<td>N/A</td>
<td>Waterproof all wall to floor junctions, where a flashing is used the horizontal leg shall be a minimum of 40 mm</td>
<td>N/A</td>
</tr>
<tr>
<td>Areas adjacent to baths and spas** for concrete and compressed fibre cement sheet flooring</td>
<td>Water resistant to entire floor</td>
<td>Water resistant to a height of 150 mm min. above vessel and exposed surfaces below vessel lip to floor level* (see Figure 4.1)</td>
<td>Seal edges for extent of vessel and junction of bath enclosure with floor. Where the lip of the bath is supported by a horizontal surface this area shall be waterproof for showers over bath and water resist for all other cases (see Figure 4.1)</td>
<td>Seal all tap and spout penetrations where they occur in a horizontal surface</td>
</tr>
<tr>
<td>Areas adjacent to baths and spas** for timber floors including particleboard, plywood and other flooring materials</td>
<td>Waterproof entire floor</td>
<td>Water resistant to a height of 150 mm min. above vessel and exposed surfaces below vessel lip to floor level* (see Figure 4.2)</td>
<td>Seal edges for extent of vessel and junction of bath enclosure with floor. Where the lip of the bath is supported by a horizontal surface this area shall be waterproof for showers over bath and water resist for all other cases (see Figure 4.2)</td>
<td>Seal all tap and spout penetrations where they occur in a horizontal surface</td>
</tr>
</tbody>
</table>

* (continued)
### TABLE 4.1 (continued)

<table>
<thead>
<tr>
<th>Vessels or area where the fixture is installed</th>
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<th>Wall junctions and joints</th>
<th>Penetrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insert baths</td>
<td>N/A for floor under the bath</td>
<td>N/A for wall under the bath</td>
<td>N/A for wall under the bath*</td>
<td>Seal all tap and spout penetrations where they occur in a horizontal surface</td>
</tr>
<tr>
<td>Water resistant to entire floor</td>
<td>Water resistant to a height of 150 mm min. above vessel if the vessel is within 75 mm min. of the wall (see Figure 4.4)</td>
<td>Where the vessel is fixed to a wall, seal edges for extent of vessel</td>
<td>Seal all tap and spout penetrations where they occur in a horizontal surface</td>
<td></td>
</tr>
<tr>
<td>Bathrooms and laundries requiring a floor waste in accordance with Volume One of the BCA</td>
<td>Waterproof and drain entire floor</td>
<td>N/A.</td>
<td>Seal all wall to floor junctions with a skirting or flashing to 25 mm min. above the finished floor level, sealed to the floor</td>
<td>Waterproof where through the floor, otherwise N/A</td>
</tr>
</tbody>
</table>

**LEGEND:**

N/A = not applicable

* If a shower is included in a bath refer to the requirements for shower area walls and penetrations

† Does not apply to joinery fittings such as vanities
4.1 Extent of treatment for wet areas - shower area over bath - enclosed shower - for concrete and compressed fibre cement sheet flooring.

*Drawing details for internal wet areas per AS 3740 - 2004.*

- Waterproof to 1800 from finished floor level with Sika® SealTape-S to corner.
- Measured from the shower connection at the wall.
- Shower panel sealed at all junctions with Sikasil® Pool.
- Waterproof to 1800 from finished floor level with Sika® SealTape-S to / Sika® Joint Bandage.
- Waterproof to 1300 mm from the shower connection at the wall and 25 mm above finished floor level with Sika® SealTape-S.
- Waterproof floor with Sikalastic®-152 with an upstand of 25 mm / Sikalastic®-220 W.
- Waterproof to 1500 from shower connection at wall and grade to a floor waste.
- Waterproof walls with Sikalastic®-220 W.
- Waterproof bath/wall junction, junction to make junction waterproof.
- Water resistant walls to 1800 from finished floor level.
- Waterproof bath/joint with Sika® SealTape-S / Sika® Joint Bandage.
- Waterproof to 1800 from finished floor level with Sika® SealTape-S to corner.
- Optional shower panel.
- If confined by shower screen.
- Waterproof to 1800 from finished floor level with Sika® SealTape-S / Sika® Joint Bandage.
- Waterproof junction to 1300 mm from the shower connection at the wall and 25 mm above finished floor level with Sika® SealTape-S.
- Dimensions in millimetres.
4.2 Extent of treatment for wet areas - shower area over bath - unenclosed shower - for timber floors including particleboard, plywood and other flooring materials.

*Drawing details for internal wet areas per AS 3740 - 2004.*

**Waterproofing Details**

- **Internal & External Areas**
- **Technical Drawing**

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**Drawing Details**

- Waterproof to 1800 from finished floor level with Sika® SealTape-S / Sika® Joint Bandage
- If confined by shower screen
- Optional shower panel
- Waterproof entire floor with Sikalastic®-152 / Sikalastic®-220 W

**Plan View**

- Waterproof walls with Sikalastic®-220 W
- Shower screen
- WR walls to 1800 finished floor level
- Waterproof bath/wall junction, junction to make junction waterproof
- Waterproof junction with Sika® SealTape-S / Sika® Joint Bandage
- Waterproof bath lip/tile joint with Sika® SealTape-S / Sika® Joint Bandage

**Isometric View**

- Waterproof to 1800 from finished floor level with Sika® SealTape-S / Sika® Joint Bandage
- Seal tap, shower rose and bath spout penetrations with Sika® SealTape wall flashings
- Waterproof junction width of 40 mm either side of the junction
- Waterproof junction to the wall and 25 mm above finished floor level with Sika® SealTape-S
- Floor waste
- Waterproof entire floor with Sikalastic®-152 / Sikalastic®-220 W
4.3 Extent of treatment for shower areas - concrete and compressed fibre cement sheet.

*Drawing details for internal wet areas per AS 3740 - 2004.*
4.4 Section through bath extent of treatment for wet areas - baths and other vessels.

*Drawing details for internal wet areas per AS 3740 - 2004.*

(a) Vessel abutting wall

(b) Wall/bath junctions
5.1 Typical preformed shower base junctions.  
Drawing details for internal wet areas per AS 3740 - 2004.

**BATHS & SPAS**

Baths and spas shall be supported to prevent distortion and cracking. Baths and spas recessed into the wall shall be installed to allow the water-resistant surface materials of the wall to pass down inside the rim of the bath or spa (see Figures 5/2(a) and 5.2(b)). When installing baths and spas, the integrity of the structure shall be maintained.
5.2 **Typical bath junction.**

*Drawing details for internal wet areas per AS 3740 - 2004.*

![Diagram of Typical Bath Junction](image)

- **Waterproofing with Sikalastic®-220 W**
- **Water-resistant surface material of the wall**
- **Waterproof sealant** Sikasil® Pool
- **Bath**

(a) Bath/shelf junction-recessed

- **Waterproofing with Sikalastic®-220 W**
- **Wall sheathing**
- **Water-resistant surface material of the wall**
- **Batten to accommodate rim of bath**
- **Waterproof sealant** Sikasil® Pool
- **Bath**

(b) Bath/shelf junction-battened

- **Waterproof sealant : Sikasil® Color**
- **Floor tile**
- **Water stop under bath** lip to project a minimum of 5 mm above the tile surface
- **Membrane: Sikalastic®-152/ Sikalastic®-220 W**
- **Sika® SealTape-S / Sika® Joint Bandage**
- **Shelf substrate**
- **Mortar tile bed**

(c) Bath/shelf junction
5.3 Typical bathroom door detail for whole bathroom waterproofing. Drawing details for internal wet areas per AS 3740 - 2004.
DRAWING DETAILS FOR EXTERNAL WET AREAS
56 Falls in membrane roofs and decks

Notes: Refer to Figure 62 for thresholds and clearances. Junction saddle flashing - refer figure 13.

**DECK**

Door or window frame opening 150 mm min. to balustrade wall cladding

Line of internal floor level

Line of base of cladding

Fall: 1.5°, 1:40 min.

Saddle flashing see detail

Solid balustrade see detail

Overflow where applicable

Gutter or low point of roof to discharge through scupper to rainwater head or roofing outlet
57  External corner in upstand

Place Sika® SealTape®-S at external corner and cover with Sikalastic®-152 / Sikalastic®-220 W
For membrane upstand use Sika® SealTape®-S internal corner and cover with Sikalastic®-152 / Sikalastic®-220 W.
59  Verges in membrane

- Eave

*Sikalastic®-152* membrane dressed over substrate and angle

*Sika® SealTape®-S* external corner

Spouting

Wall cladding and wall underlay

Substrate

50 x 50mm metal angle

50
62  Junctions with walls for membrane
Note: Internal corners to be formed as shown in Figure 58. Dimensions are shown to membrane, however where there is an additional material applied over the membrane, all dimensions shall apply to the highest level of the wearing surface.

- **Direct Fix Cladding**
  - Cladding
  - Carry Sikalastic®-152 membrane up behind wall underlay and against solid framing
  - Wall structure
  - Wall offset at bottom of cladding
  - Enclosed deck structure

- **Direct Fix Threshold at Opening**
  - Dress Sikalastic®-152 membrane 100mm min. up framing at ends.
  - Width to suit joinery and cladding
  - Air seal
  - Frame block
  - Floor finishes
  - Sill tray
  - Enclosed deck structure

- **Cavity Fixed Cladding**
  - Cladding over cavity battens
  - Carry Sikalastic®-152 membrane up behind wall underlay and against solid framing
  - Wall structure
  - Cavity base closer
  - Drip edge
  - Enclosed deck structure

- **Cavity Threshold at Opening**
  - Turn-up membrane 100 mm min. at trimmer studs
  - Floor or threshold structure
  - Air seal
  - Floor finishes
  - Sill support bar, pre-fill fixing holes with silicon sealant
  - Line of cladding beyond
  - Sikalastic®-152 membrane to be extended under sill reveal
RAINWATER HEAD AND SCUPPER OPENING IN MEMBRANE

Note: Use preformed scuppers where provided by the membrane supplier.

Deck Outlet

Continuous Sikalastic®-152 dressed through opening with upper edges sealed against cladding. Return over rainwater head at sides.

- 50 mm min. each side
- 200 mm min. opening
- Lip of discharge at lowest point of roof
- Rainwater head
- 75 mm min. opening
- Overflow below opening level, 1.5 x cross section area of downpipe

Outlet through Wall

- Cavity battens with base closure and drip edge to cladding at opening
- Continuous membrane dressed through base and up sides of opening with upper edges sealed against cladding.
- Return along back of rainwater head
- Return membrane into rainwater head
- Sikalastic®-152 dressed over 50x50 mm aluminium angle rebated into substrate

Overflow

- Refer to cladding for cavity finish
- Continuous membrane dressed through base and up sides of opening
- Sikalastic®-152 membrane turned over lip
- 50x50 mm aluminium angle drip edge rebated into substrate
- 50 mm lip

Section A - A

- Line of membrane lapped 50 mm min. behind wrap under cladding
- Outlet through wall
- Sikalastic®-152 membrane roof on substrate
64 Gutters and outlets in membrane

Typical Roof Outlet

Proprietary roof outlet with membrane clamped by screw fixed grate or dome
Sikalastic®-152 membrane on substrate

Gutters and outlets in membrane

Sikalastic®-152 membrane on substrate

Central Gutter

Proprietary roof outlet with membrane clamped by screw fixed grate or dome
STANDARDS FOR TILE ADHESIVES & GROUTS

TILE ADHESIVES

STANDARD EN 12004
This standard establishes the specifications and methods for classifying of adhesives for ceramic tile and similar material on floors and walls.

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Cement-base Adhesives in powder form: to be mixed with water or some other appropriate liquid right before use</td>
</tr>
<tr>
<td>D</td>
<td>Dispersion Adhesives: ready-to-use pastes based on organic polymers in water dispersion</td>
</tr>
<tr>
<td>R</td>
<td>Reactive Adhesives: based on two or more components to be mixed before use, which sets by means of chemical reaction</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1</td>
<td>Normal adhesives (with minimum criteria)</td>
</tr>
<tr>
<td>Class 2</td>
<td>Improved adhesives (with additional criteria)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Fast setting adhesives</td>
</tr>
<tr>
<td>T</td>
<td>Thixotropic adhesives (withstand slip)</td>
</tr>
<tr>
<td>E</td>
<td>Extended (longer) open time adhesives</td>
</tr>
</tbody>
</table>

STANDARD EN 12002
This standard determines the transverse deformation degree (elasticity) of cement-based adhesives and grouts, and divides them into two categories.

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>Deformable product with $\geq 2.5$ mm deformability</td>
</tr>
<tr>
<td>S2</td>
<td>Highly deformable product with $\geq 5$ mm deformability</td>
</tr>
</tbody>
</table>

TILE GROUT

STANDARD EN 13888
This standard establishes the specifications and methods for classifying grouts for ceramic tiles and similar material on floors and walls. It divides the grouts into two categories:

<table>
<thead>
<tr>
<th>Class</th>
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</tr>
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<tbody>
<tr>
<td>CG</td>
<td>Cement-based Grouts: in powder form, to be mixed with water or some other appropriate liquid right before use</td>
</tr>
<tr>
<td>RG</td>
<td>Reactive Grouts: based on two or more components to be mixed before use, which sets by means of chemical reaction</td>
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<table>
<thead>
<tr>
<th>Class</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Class 1</td>
<td>Normal grouts (with minimum criteria)</td>
</tr>
<tr>
<td>Class 2</td>
<td>Improved grouts (with additional criteria, reduced water absorption and high resistance to abrasion)</td>
</tr>
</tbody>
</table>
BRANZ APPRAISALS
Sikalastic®-152 & Sikalastic®-220 W

BRANZ APPRAISAL NO. 811 [2013]
Sikalastic-152 EXTERIOR WATERPROOFING MEMBRANE

Scan the QR Code for a copy of BRANZ Appraisal No. 811 [2013]

BRANZ APPRAISAL NO. 812 [2013]
Sikalastic-152 AND Sikalastic-220 W INTERIOR WATERPROOFING MEMBRANES

Scan the QR Code for a copy of BRANZ Appraisal No. 812 [2013]

WATERPROOFING DETAILS
Sika Tile Installation Systems · Internal & External Areas
WHO WE ARE
Sika AG, Switzerland, is a globally active specialty chemicals company. Sika supplies the building and construction industry as well as manufacturing industries (automotive, bus, truck, rail, solar and wind power plants, façades). Sika is a leader in processing materials used in sealing, bonding, damping, reinforcing and protecting loadbearing structures. Sika’s product lines feature high quality concrete admixtures, specialty mortars, sealants and adhesives, damping and reinforcing materials, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.