



## **AQUAFIN-2K/M** **FLEXIBLE CEMENTITIOUS WATERPROOFING**

### **Typical Waterproofing Specifications**

#### **Table of Contents:**

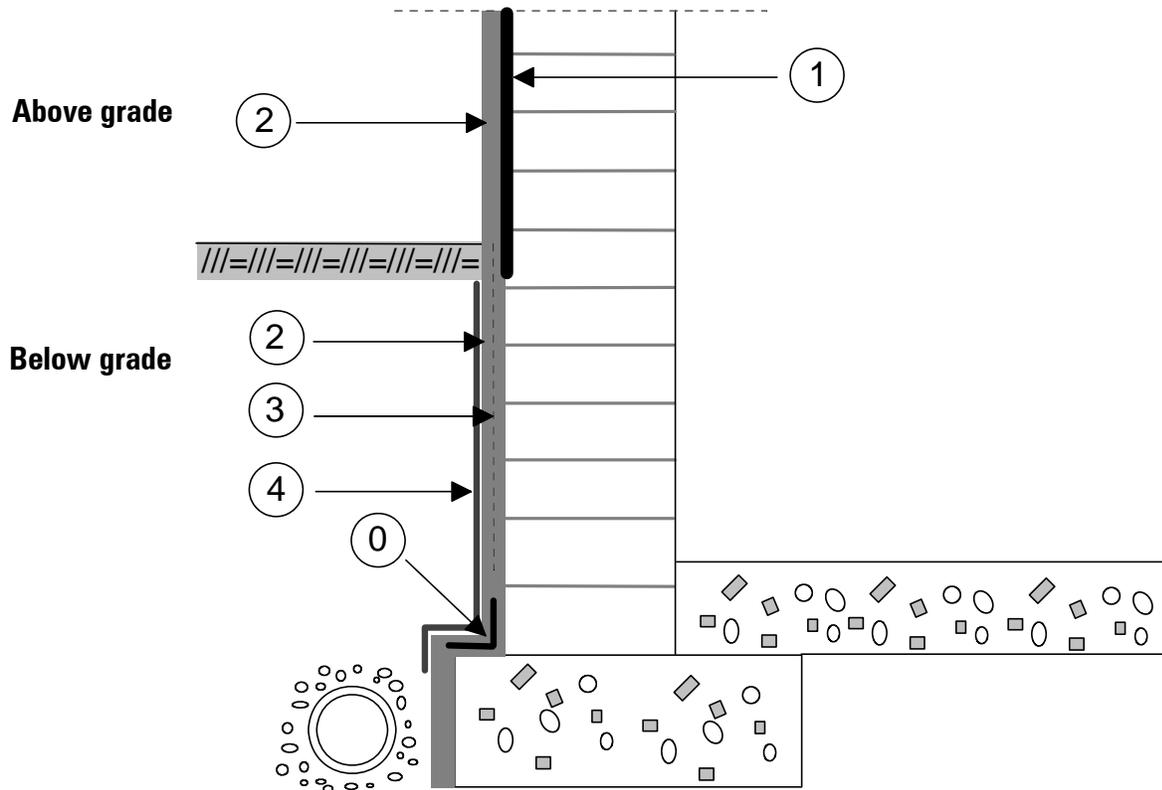
<b>No.</b>	<b>Waterproofing Specification</b>	<b>Specification No.</b>
1	Exterior waterproofing of CMU or brick walls	1.1.3 - 1
2	Interior waterproofing of existing foundation wall & slab	1.1.3 - 2
3	Exterior waterproofing of concrete walls	1.1.3 - 3
4	Waterproofing of tiled swimming pool	1.1.3 - 4
5	Waterproofing of fountain / decorative water feature	1.1.3 - 5
6	Waterproofing of open or vented sewage and other tanks	1.1.3 - 6
7	Waterproofing of a planter	1.1.3 - 7
8	Waterproofing of covered underground parking garage deck	1.1.3 - 8
9	Waterproofing under topping slabs or pavers	1.1.3 - 9
10	Waterproofing of marine aquarium and zoo concrete tanks	1.1.3 - 10
11	Waterproofing of tiled balcony	1.1.3 - 11
12	Waterproofing of tiled fountain	1.1.3 - 12
13	Waterproofing/protecting of non-tiled balcony	1.1.3 - 13
14	Typical sealing around pipe penetrations	1.1.3 - 14
15	Waterproofing of construction joints, expansion joints & cracks	1.1.3 - 15
16	Waterproofing of wall / floor expansion joint	1.1.3 - 16

Note: These specification sketches have been prepared with our best knowledge and experience available at the time of publishing. As technology advances and construction methods change we may have to update them. We therefore kindly ask the user to check the date on this page of this issue and to re-check with us whether you have the latest edition. It is our goal to serve you and the construction industry as best as possible.

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**EXTERIOR WATERPROOFING OF CMU OR BRICK WALLS  
AQUAFIN-2K/M FLEXIBLE CEMENTITIOUS WATERPROOFING**

Schematic sketches



- ① Seal exterior cracks, vertical and horizontal joints with AQUAFIN JOINT SEALING TAPE-2000 or CRACK SEALING TAPE.  
Alternative: form cove of AQUAFIN MORTAR-LN or MORTAR-40 at wall/foundation joint.
- ② Seal porous surfaces and mortar joints with one scratch coat AQUAFIN-1K or approx. 60 mils (1/16") thickness [1.6 mm].
- ③ Apply AQUAFIN-2K/M to walls at 1/16" [60 mils] (1.6 mm) total thickness. Apply base coat by brush ensuring good adhesion. Apply top coat with brush, roller, trowel or spraying. Smooth with a trowel if desired.
- ④ If desired, embed AQUAFIN-4x4-MESH to increase tear resistance into 1st coat of AQUAFIN-2K/M using a steel trowel. Cover with 2nd coat AQUAFIN-2K/M.
- ④ Install protection boards or drain mats before backfilling.

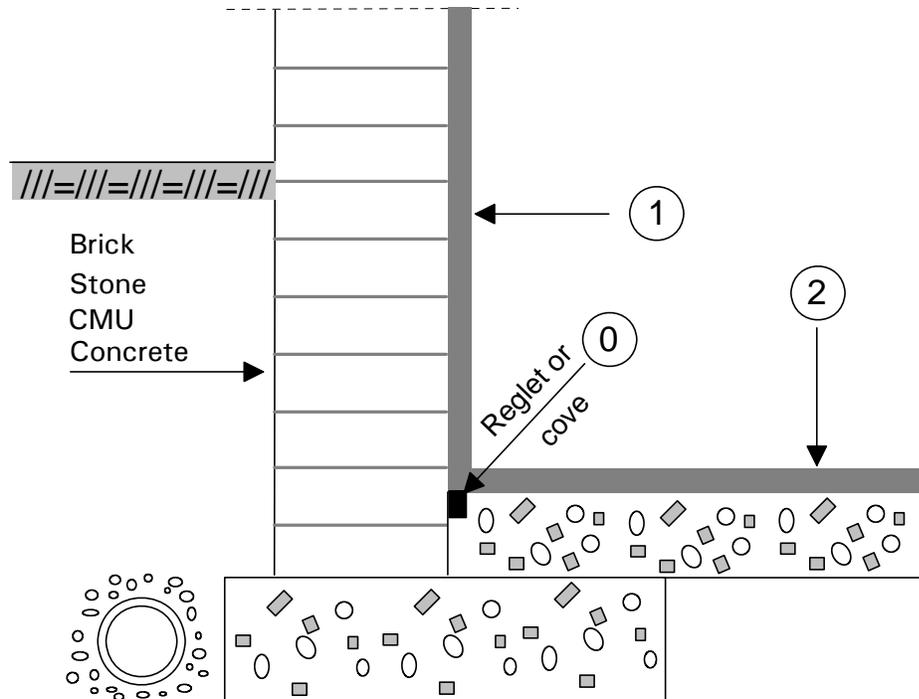
**Note:**

In areas with poor drainage or where high hydrostatic pressure is anticipated, increase total application rate of AQUAFIN-2K/M to 80 - 90 mils (2.0 - 2.25 mm).

Refer to product data sheet for further information.

## INTERIOR WATERPROOFING OF EXISTING FOUNDATION WALL & SLAB

Schematic sketches



① Install sealing reglet (~1" x 3/4") or cove (~1.5" x 1.5") with AQUAFIN-MORTAR-LN at wall/slab joints.

①

### A. Brick and stone rubble walls:

- a. Level surface and mortar joints with minimum 1/2" (12 mm) thick MORTAR-LN.
- b. Apply 1-2 coats AQUAFIN-1K (gray or white) at total 1/16" [60 mils] (1.6 mm) thickness.

### B. CMU block walls:

- a. Apply 2 coats AQUAFIN-1K (gray or white) at total 1/16" [60 mils] (1.6 mm) for dampproofing or 1/10" [100 mils] (2.5 mm) for waterproofing.

### C. Concrete walls:

- a. Apply 2 coats AQUAFIN-IC (gray or white) at total 1/32" [32 mils] (0.8 mm) thickness (2.8 lb/yd<sup>2</sup> (1.5 kg/m<sup>2</sup>)).

Alternative for aesthetic appearance:

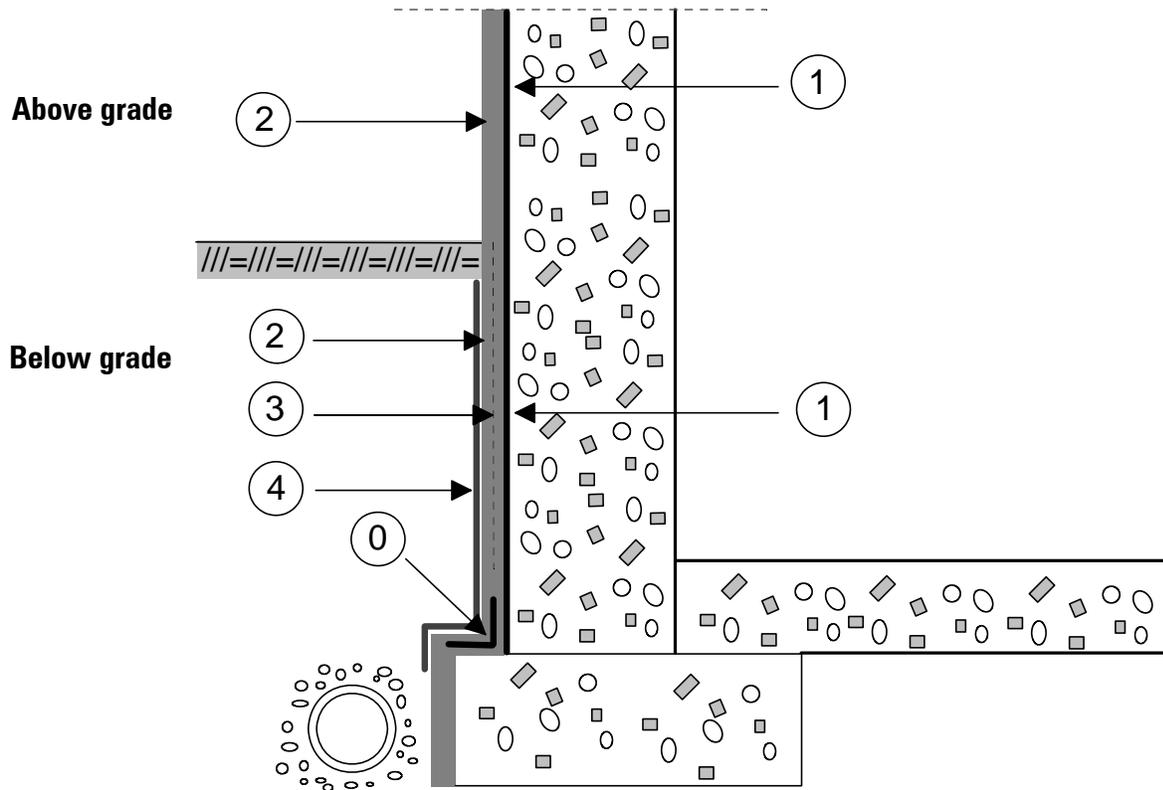
- a. Apply 2 coats AQUAFIN-1K (gray or white) at total 1/16" [60 mils] (1.6 mm) for dampproofing or 1/10" [100 mils] (2.5 mm) for waterproofing.

② For basements being converted to offices or habitable areas that will receive carpeting, VCT, hardwood flooring, etc. install AQUAFIN VAPORTIGHT COAT®-SG3 vapor and moisture emission barrier if vapor emission exceeds 3 lbs/24 hrs • 1000 ft<sup>2</sup> (0.6 g/hr • m<sup>2</sup>) or >75% RH as per ASTM F-2170.

Refer to product data sheets for further information.

**EXTERIOR WATERPROOFING OF CONCRETE WALLS  
AQUAFIN-2K/M FLEXIBLE CEMENTITIOUS WATERPROOFING**

Schematic sketches



- ⓪ Seal exterior cracks, vertical and horizontal joints with AQUAFIN JOINT SEALING TAPE-2000 or CRACK SEALING TAPE.
- ⓪ Alternative: form cove of AQUAFIN MORTAR-LN or MORTAR-40 at wall/foundation joint.
- ① Seal ("sack") "bug holes" with AQUAFIN-1K. Use MORTAR-LN or MORTAR-40 for patching honey combs.
- ② Apply AQUAFIN-2K/M to walls at 1/16" [60 mils] (1.6 mm) total thickness. Apply base coat by brush ensuring good adhesion. Apply top coat with brush, roller, trowel or spraying. Smooth with a trowel if desired.
- ③ If desired, embed AQUAFIN-4x4-MESH into 1st coat of AQUAFIN-2K/M using a steel trowel. Cover with 2nd coat AQUAFIN-2K/M. Contact Aquafin office for recommendations.
- ④ Install protection boards or drain mats before backfilling.

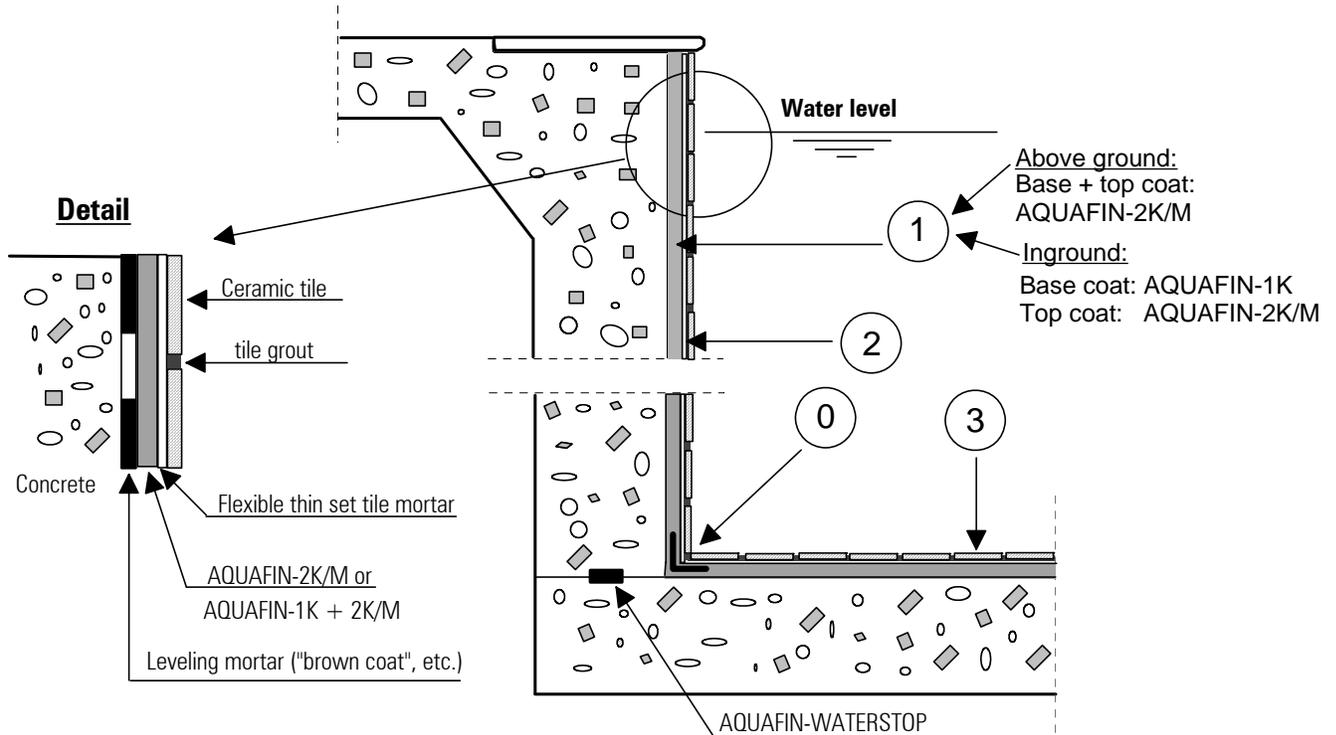
**Note:**

In areas with poor drainage or where high hydrostatic pressure is anticipated, increase total application rate of AQUAFIN-2K/M to 80 - 90 mils (2.0 - 2.25 mm).

Refer to product data sheet for further information.

## WATERPROOFING OF TILED SWIMMING POOL - AQUAFIN-2K/M

### Schematic sketches Cast-in-place



#### **Substrate: Cast-in-place concrete or gunite (shotcrete)**

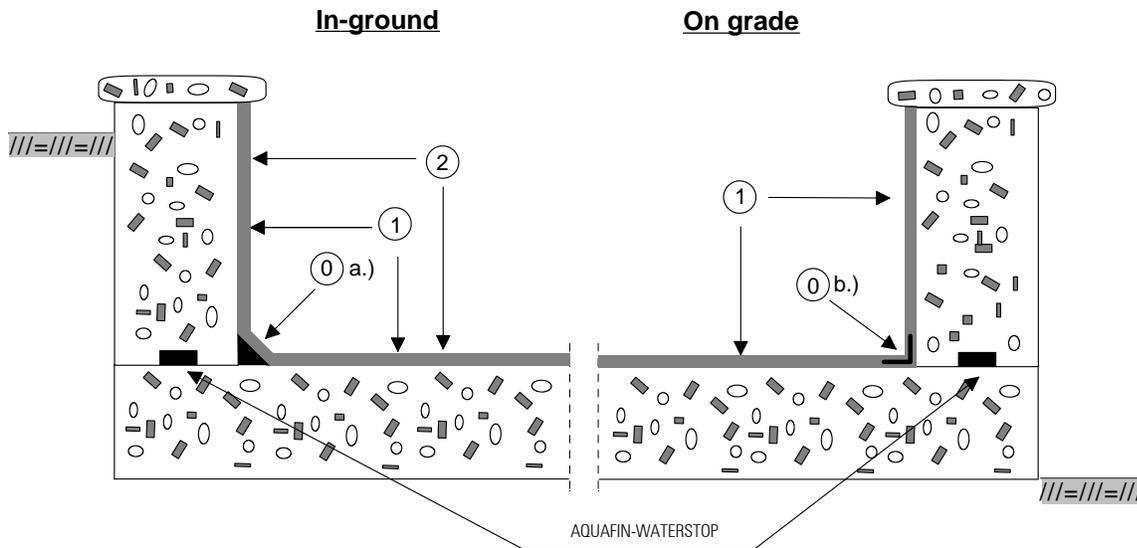
**Note:** Install leveling coats (i.e. "mud bed", "brown coat", plaster, etc.) to the concrete substrate, prior to the application of AQUAFIN-1K and/or AQUAFIN-2K/M.

- ① Install AQUAFIN JOINT SEALING TAPE-2000 or CRACK SEALING TAPE to seal cracks and cold joints and JOINT SEALING TAPE-2000-S to seal expansion joints. Refer to No. 1.1.3-15 for details.
- ① **Above ground + elevated:** Apply AQUAFIN-2K/M to interior pool surfaces in 2 coats at a total thickness of 80 mils (2.0 mm).
- ① **In-ground:**
  - Apply 1st (base) coat AQUAFIN-1K at 60 mils (1.6 mm);
  - Apply 2nd (top) coat AQUAFIN-2K/M at 60 mils [1/16"] (1.6 mm) thickness to walls and floor, wherever rain or groundwater (negative side) pressure can be expected (i.e. inground pools, ponds, etc.). This can also apply to gutters. See application rates on AQUAFIN-2K/M data sheet.
- ② Apply flexible thin set tile mortar over AQUAFIN-2K/M.
- ③ Install ceramic or glass tiles and tile grout. Observe TCNA Guidelines for movement joint spacing.  
Refer to standard specifications and product data sheet for further information.



**WATERPROOFING OF DECORATIVE WATER FEATURE  
AQUAFIN-2K/M FLEXIBLE CEMENTITIOUS WATERPROOFING**

Schematic sketches



- ② a.) Install cove with AQUAFIN MORTAR-LN or MORTAR-40 [~1.5" x 1.5"] (~38 x 38 mm) at non-moving (static) wall/slab joints.
- ② b.) Alternative: Seal cracks and non-moving joints with JOINT SEALING TAPE-2000 or CRACK SEALING TAPE and dynamic (expansion) joints with JOINT SEALING TAPE-2000-S. Refer to No. 1.1.3-15 for details.

① **On grade, above ground + elevated:**

For water levels < 13' (<4 m) apply AQUAFIN-2K/M to walls and slabs at 1/16" [60 mils] (1.6 mm).

**In-ground:**

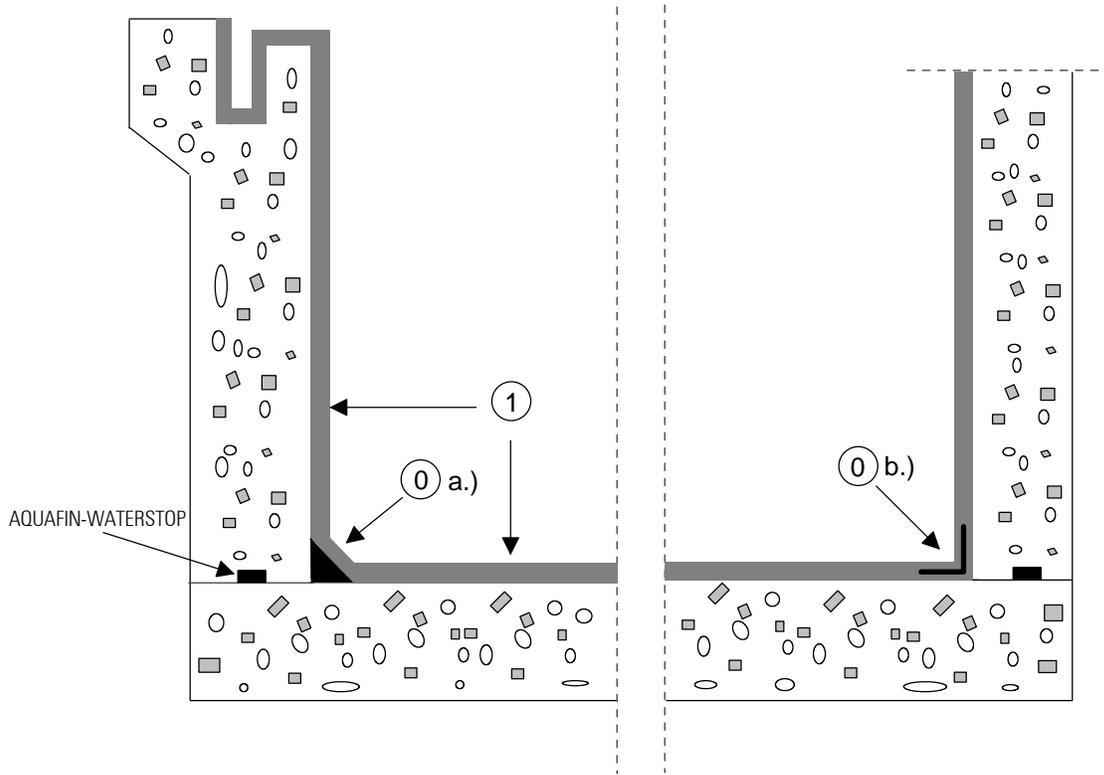
- ② Apply 1st (base) coat AQUAFIN-1K at 60 mils (1.6 mm).
- ① Apply 2nd (top) coat AQUAFIN-2K/M at 60 mils (1.6 mm) thickness to walls and floor, wherever rain or groundwater (negative side) pressure can be expected (i.e. inground structures, etc.). See application rates on AQUAFIN-2K/M data sheet.  
Wait minimum 24 hrs. before applying top coat over base coat.

Refer to standard specifications and product data sheet for further information.



**WATERPROOFING OF OPEN OR VENTED SEWAGE AND OTHER TANKS**  
**AQUAFIN-2K/M FLEXIBLE CEMENTITIOUS WATERPROOFING**

(Clarifiers, digesters, pumping stations, etc.) Schematic sketches



- ⓪ a.) Install cove with AQUAFIN MORTAR-LN or MORTAR-40 at non-moving (static) wall/slab joints.
- ⓪ b.) Alternatively, install AQUAFIN JOINT SEALING TAPE-2000 or CRACK SEALING TAPE. Use JOINT SEALING TAPE-2000-S at expansion joints. Refer to No. 1.1.3-15 for details.

① **Above ground tanks:** Apply AQUAFIN-2K/M to walls and slabs at 3/32" [90 mils] (2.4 mm) total thickness.

**Inground tanks:** Apply 1st (base) coat AQUAFIN-1K at 60 mils (1.6 mm) and 2nd (top) coat AQUAFIN-2K/M at 60 mils [1/16"] (1.6 mm) thickness to walls and floor, wherever rain or groundwater (negative side) pressure can be expected (i.e. inground structures, etc.). See application rates on AQUAFIN-2K/M data sheet.

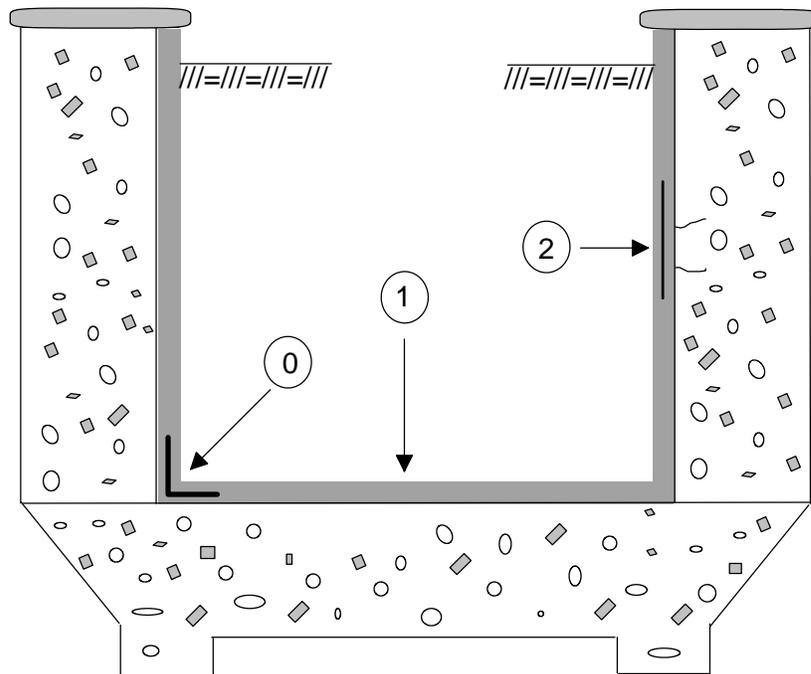
**Note:** Use epoxy coatings in H<sub>2</sub>S environments.

Refer to standard specifications and product data sheet for further information.

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**WATERPROOFING OF A PLANTER**  
**AQUAFIN-2K/M FLEXIBLE CEMENTITIOUS WATERPROOFING**

Schematic sketches

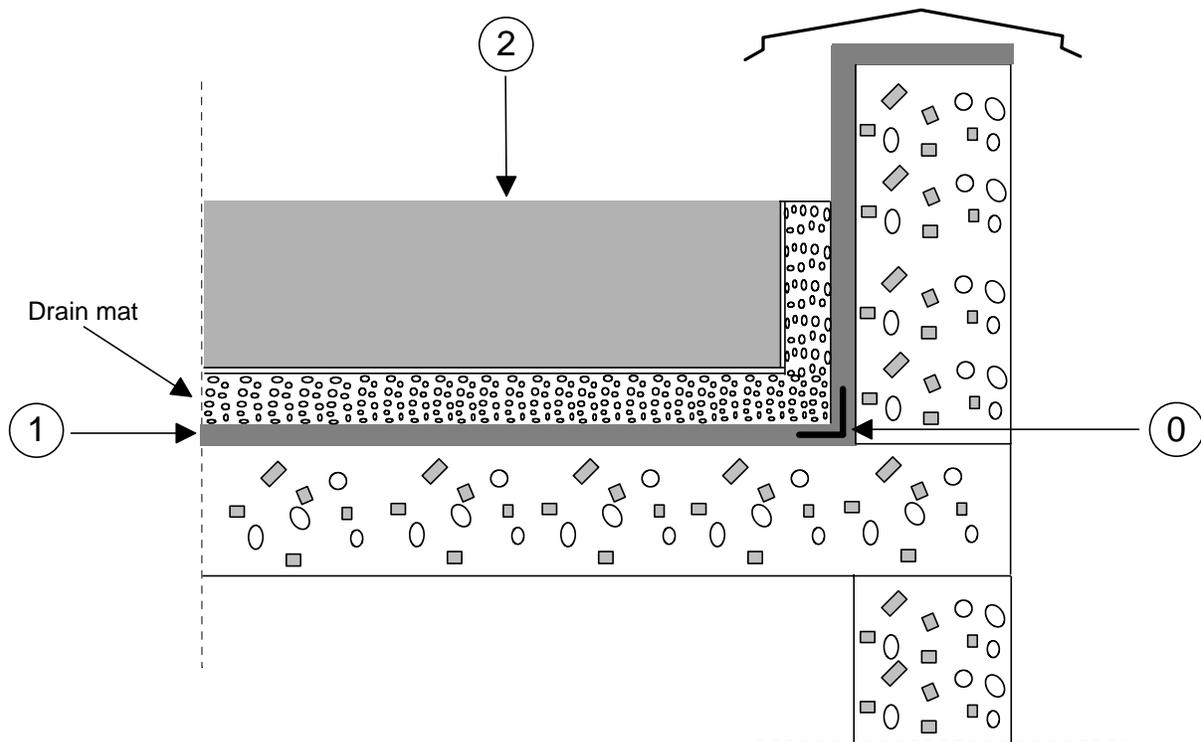


- ① Install JOINT SEALING TAPE-2000 or CRACK SEALING TAPE at cold joints and TAPE-2000-S at dynamic cracks and joints. Refer to No. 1.1.3-15 for details.
- ① Apply AQUAFIN-2K/M at 1/16" [60 mils] (1.6 mm) in one coat by trowel. Alternatively apply in two brush or roller coats to 1/16" (1.6 mm) thickness. Smooth with a trowel if desired.
- ② Static cracks can be covered with AQUAFIN-4x4-MESH.

Refer to product data sheet for further information.

## WATERPROOFING OF COVERED UNDERGROUND PARKING GARAGE DECK AQUAFIN-2K/M FLEXIBLE CEMENTITIOUS WATERPROOFING

Schematic sketches

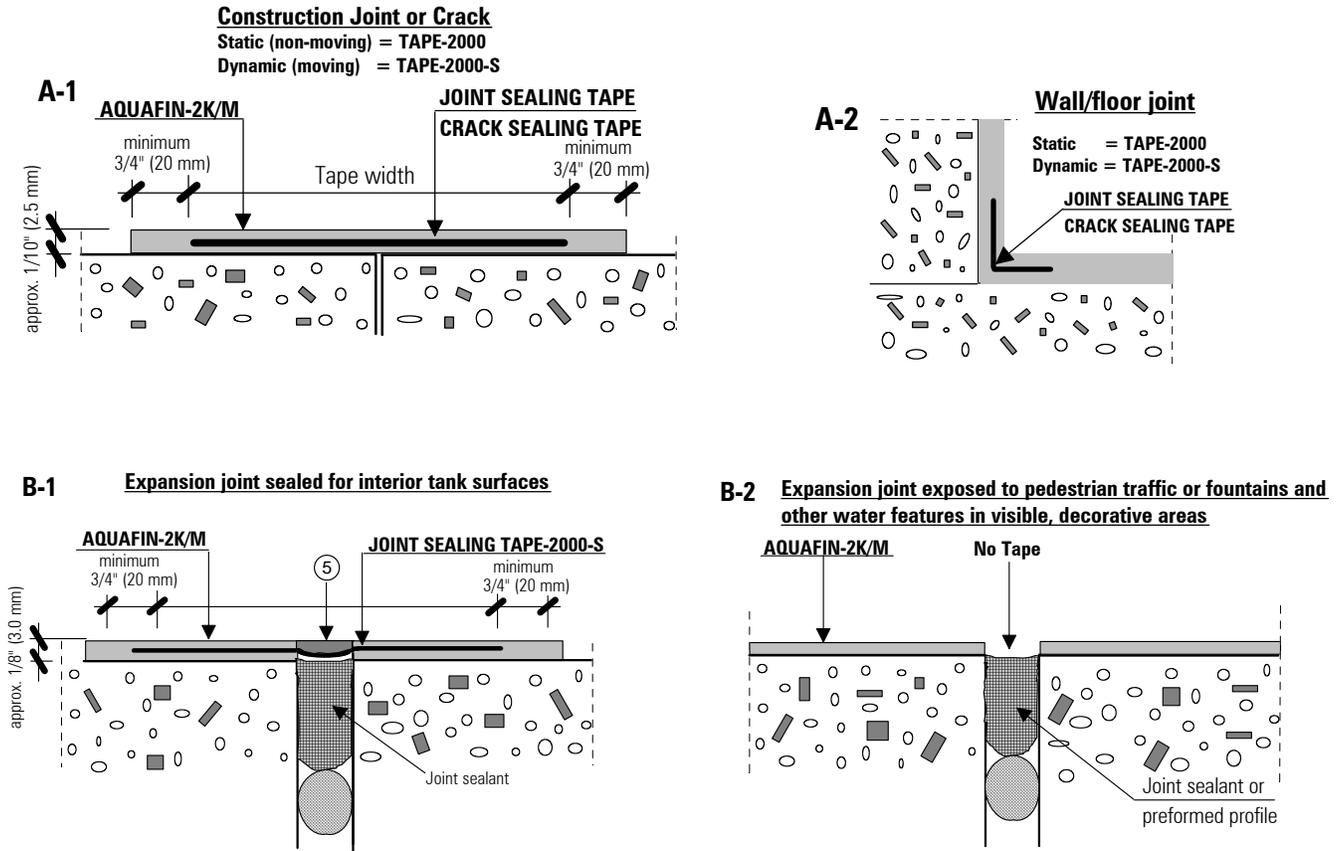


- ② Seal static cracks and construction joints with AQUAFIN JOINT SEALING TAPE-2000 or CRACK SEALING TAPE. Use JOINT SEALING TAPE-2000-S at expansion joints and dynamic cracks. Refer to No. 1.1.3-15 for details.
- ① Apply AQUAFIN-2K/M to walls and slab at 3/32" [90 mils] (2.4mm) in two coats by trowel or spray. If desired, embed AQUAFIN-4x4-MESH into 1st coat of AQUAFIN-2K/M using a steel trowel. Cover with 2nd coat AQUAFIN-2K/M.
- ② Install drain mat, root protection and planting system according to specifications.

Refer to product data sheet for further information.

## WATERPROOFING OF CONSTRUCTION JOINTS, EXPANSION JOINTS & CRACKS AQUAFIN-2K/M & JOINT SEALING TAPE

Schematic sketches



A-1 & A-2. Application/Installation steps:

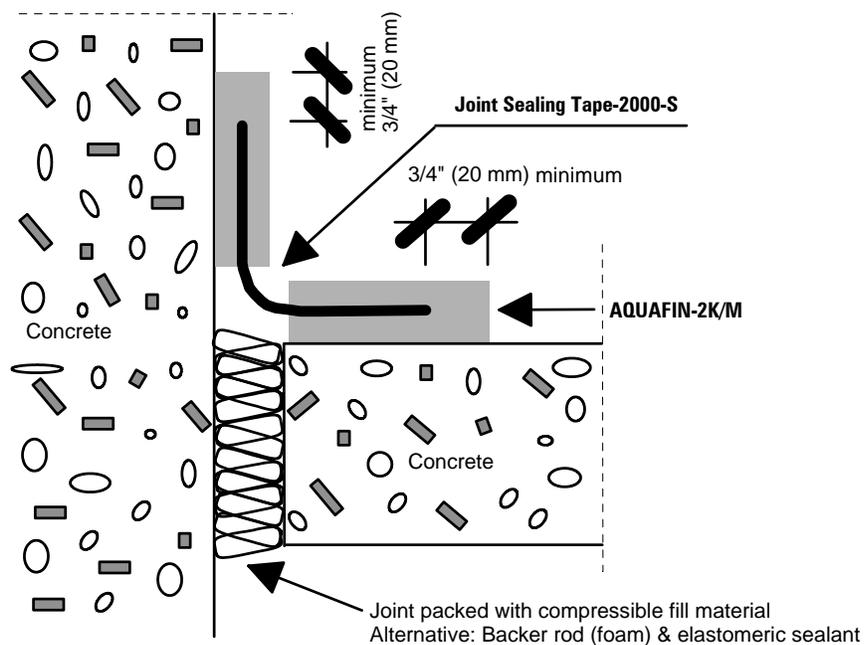
- ① Apply 1st coat of AQUAFIN-2K/M, extending min. 3/4" (20 mm) beyond either side of tape.
- ② Instantly embed JOINT SEALING TAPE or CRACK SEALING TAPE uniformly into 1st coat of AQUAFIN-2K/M, leaving no wrinkles.
- ③ Let 1st coat cure minimum 4-6 hrs and assure that the TAPE is fully bonded before starting the next step.
- ④ Cover JOINT SEALING TAPE or CRACK SEALING TAPE with 2nd coat of AQUAFIN-2K/M (same or next day) and smooth the surface with a damp brush.  
Note: Use JOINT SEALING TAPE-2000-S for areas subject to movement.
- ⑤ Coating 2K/M over the exposed tape will most likely break. However, tape will not leak.

**Note:** If necessary protect tape from mechanical damage. However, be aware that 2K/M top coat may crack due to larger movement of tape, not affecting the waterproofing process of the tape.

**WATERPROOFING OF WALL / FLOOR EXPANSION JOINT**  
**AQUAFIN-2K/M & JOINT SEALING TAPE 2000-S**

Schematic sketch

**D. Expansion joint sealed with 1 tape**



D. Sealing of wall/floor expansion joints, using 1 tape:

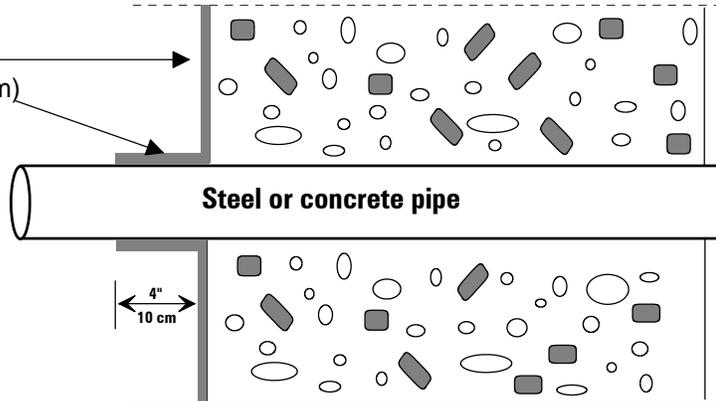
- ① Apply 1st coat of AQUAFIN-2K/M, extending min. 3/4" (20 mm) beyond either side of tape.
- ② Immediately embed JOINT SEALING TAPE-2000-S uniformly into 1st coat of AQUAFIN-2K/M, leaving no wrinkles. Allow sufficient slack to accommodate joint movement.
- ③ Let 1st coat cure minimum 4-6 hrs and assure that the TAPE is fully bonded before starting the next step.
- ④ Cover JOINT SEALING TAPE-2000-S with 2nd coat of AQUAFIN-2K/M (same or next day), stopping at joint edge, and smooth the surface with a damp brush.

**TYPICAL SEALING AROUND PIPE PENETRATIONS WITH AQUAFIN-2K/M**

Schematic sketches

**A. Sealing around steel or concrete pipes**

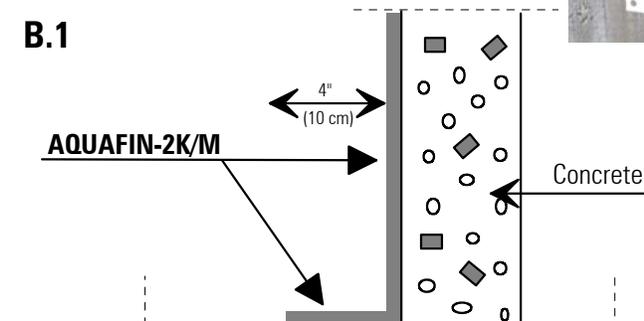
Apply AQUAFIN-2K/M surface waterproofing, extending at least 4" (10 cm) onto pipe



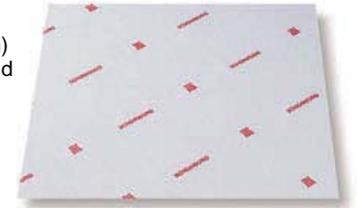
**B. Sealing around PVC pipes and drains:**



**B.1**



**AQUAFIN SEALING GASKET:**  
Size: 18" x 18" (450 x 450 mm)  
can be cut to required size and shape

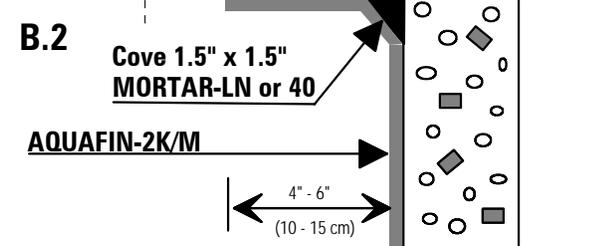


**B.1: Pipes < 6" I.D.:**

Apply AQUAFIN-2K/M surface waterproofing, extending 4" (10 cm) onto pipe.

**B.1.A.: Alternative:** Embed AQUAFIN-SEALING GASKET-18/18 into AQUAFIN-2K/M, flush to pipe.

**B.2**



**B.2: Pipes > 6" I.D.:**

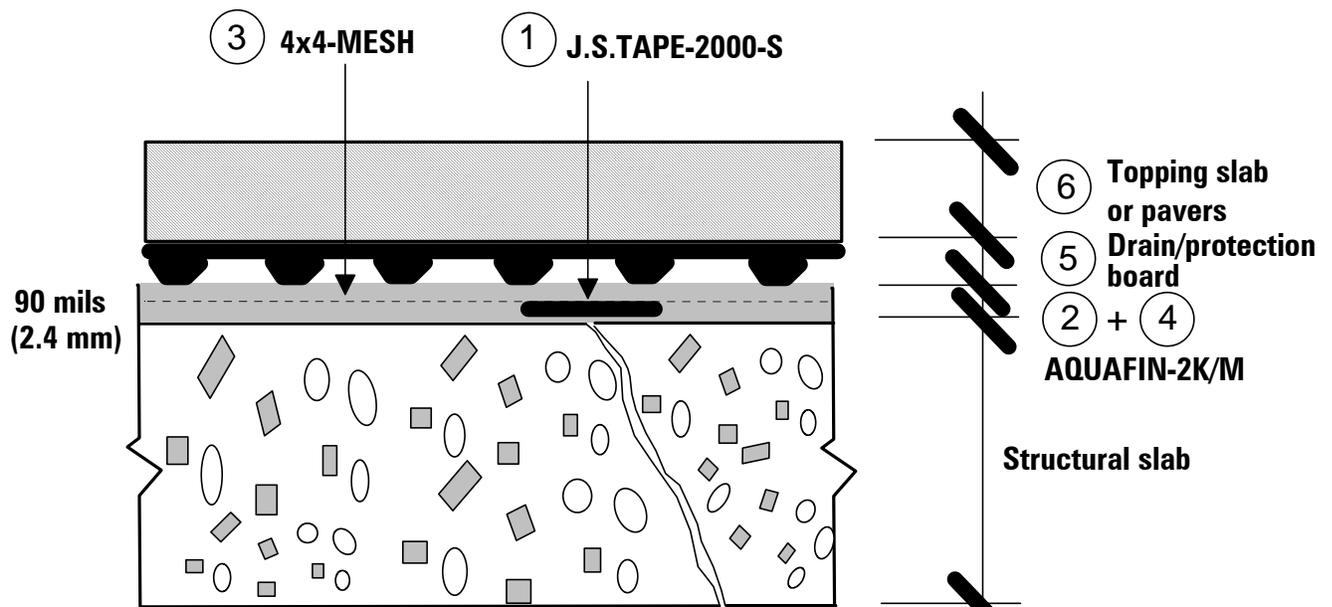
Install cove of MORTAR-"LN" or "40" at pipe penetration. Apply AQUAFIN-2K/M surface waterproofing, extending 4"-6" (100-150 mm) onto pipe. Check possibility of using AQUAFIN SEALING GASKET-18/18, 4x4-MESH or TAPE-2000-S.

**Note:** Mechanically roughen PVC surface and degrease/clean with isopropanol or acetone prior to application of AQUAFIN-2K/M.

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**WATERPROOFING UNDER TOPPING SLABS OR PAVERS**  
**AQUAFIN-2K/M FLEXIBLE CEMENTITIOUS WATERPROOFING**

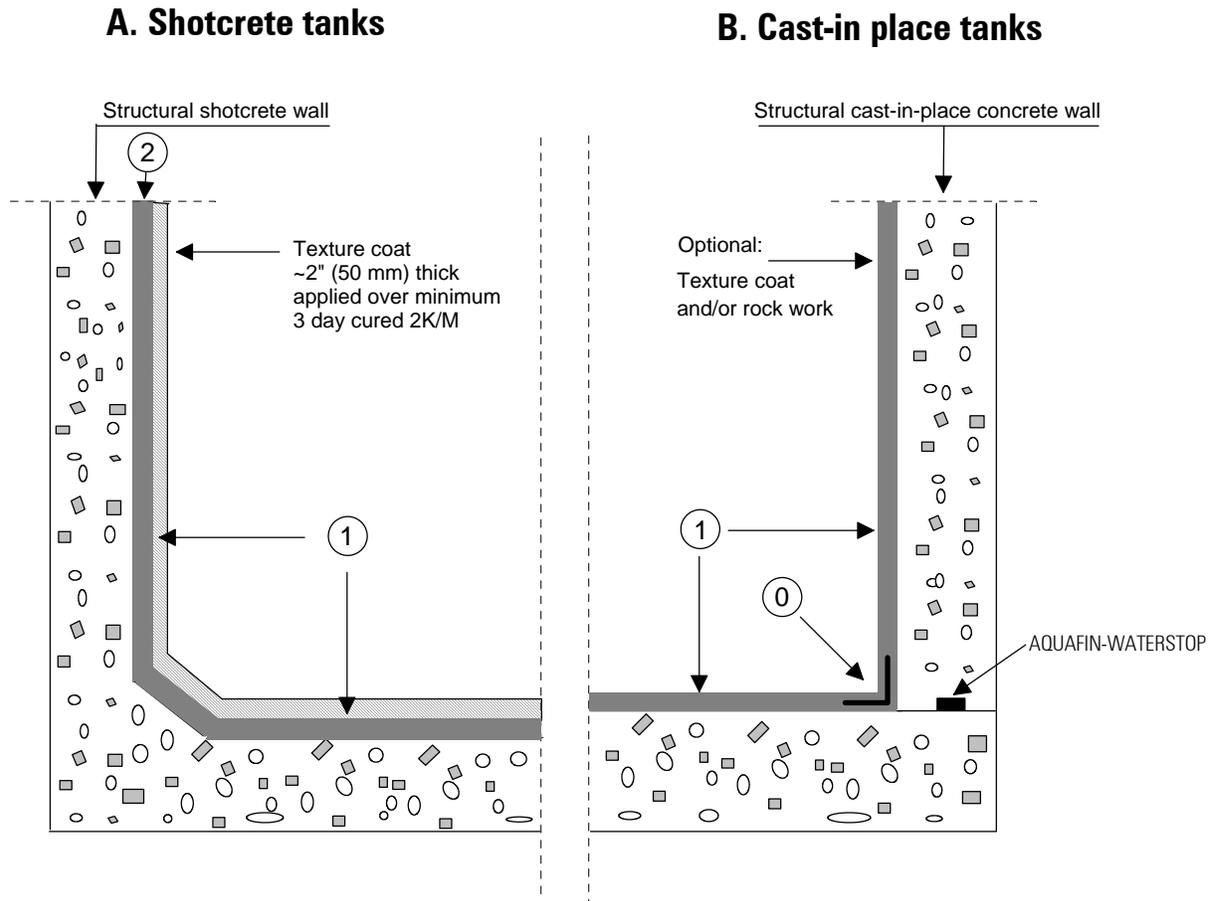
Schematic sketch



- ① Seal cracks with AQUAFIN JOINT SEALING TAPE-2000-S as per data sheet.
- ② Apply 1st (base) coat AQUAFIN-2K/M at 45 mils (1.2 mm) thickness.
- ③ Immediately embed AQUAFIN-4x4-MESH into fresh (wet) AQUAFIN-2K/M, insuring full saturation.
- ④ Apply 2nd (top) coat AQUAFIN-2K/M at 45 mils (1.2 mm) thickness after 1st coat has sufficiently hardened (3 - 5 hrs), depending on temperature, or next day.
- ⑤ Install drain/protection board/mat after AQUAFIN-2K/M reaching Shore A Hardness >85 (between 3 - 7 days).
- ⑥ Pour topping slab or place precast pavers.

Refer to product data sheets for further information.

**WATERPROOFING OF MARINE AQUARIUM AND ZOO CONCRETE TANKS**  
**AQUAFIN-2K/M FLEXIBLE CEMENTITIOUS WATERPROOFING**  
Schematic sketches



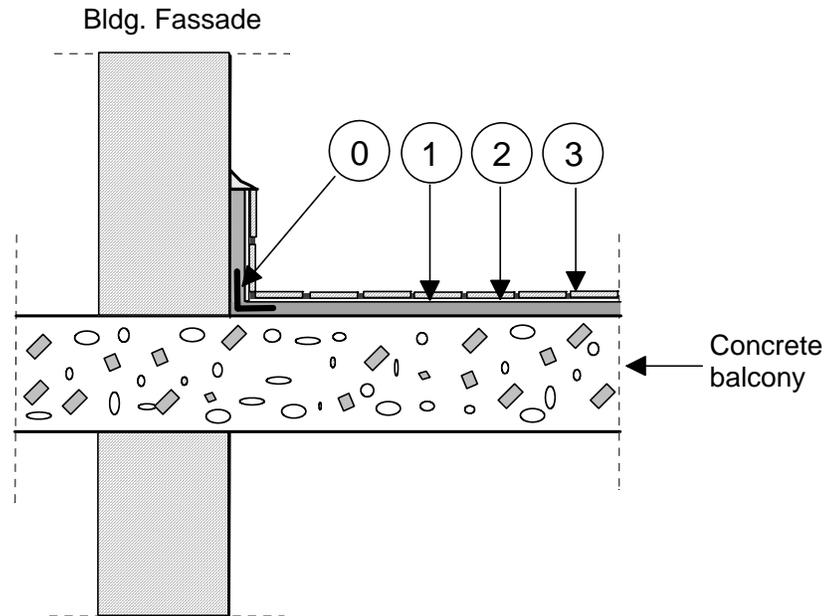
- ② Install AQUAFIN JOINT SEALING TAPE-2000 or CRACK SEALING TAPE or JOINT SEALING TAPE-2000-S (8" wide) depending on expected joint movement. Refer to No. 1.1.3-15 for details. Use in all horizontal and vertical joints and cracks (4.75" wide tape).
- ① Apply AQUAFIN-2K/M to walls and slabs at 3/32" [90 mils] (2.4 mm) total thickness. Let cure for minimum 3 days if a texture coat or other topping is to be applied. If a primer is used, apply over dry 2K/M. Prevent texture coat or topping from shrinkage to avoid delamination or damaging the 2K/M.

**Note: For cast-in-place tanks,** apply 1st coat AQUAFIN-1K at 60 mils (1.6 mm) and 2nd coat AQUAFIN-2K/M at 60 mils (1.6 mm) thickness to walls and floor, wherever rain or groundwater (negative side) pressure can be expected (i.e. inground structures, etc.). See application rates on AQUAFIN-2K/M data sheet. Call Aquafin for guidance regarding possible use of AQUAFIN-4x4-MESH.

- ② For added protection, incorporate **AQUAFIN-IC-ADMIX** crystalline waterproofing admix where applicable. Refer to standard specifications and product data sheet for further information.

## WATERPROOFING OF TILED BALCONY - AQUAFIN-2K/M

Schematic sketches

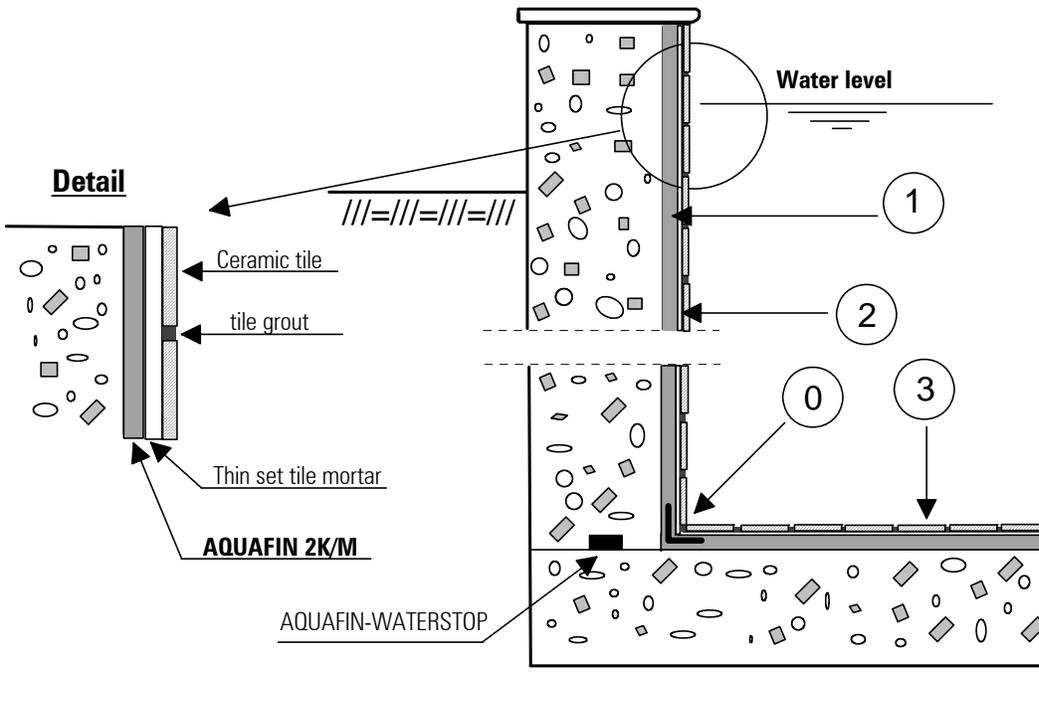


- ① Install AQUAFIN JOINT SEALING TAPE-2000, 8" (200 mm) wide, to seal wall/slab construction joint and JOINT SEALING TAPE-2000-S to seal expansion joints. Refer to No. 1.1.3-15 for details.
- ① Apply AQUAFIN-2K/M to slab and wall surfaces in 2 coats at a total thickness of 80 mils (2.0 mm).
- ② Apply flexible thin set tile mortar over AQUAFIN-2K/M.
- ③ Install ceramic tile and tile grout as per tile manufacturer. Observe TCNA Guidelines for movement joint spacing.

**Note:**

- The same Aquafin system applies in case of 24" x 24" pavers, set in a mortar bed of minimum 3/4" thickness in lieu of thin set tile mortar.
- If necessary pitch to floor drain using MORTAR-LN, QUICK-Patch or MORTAR-Screed.

**WATERPROOFING OF TILED FOUNTAIN - AQUAFIN-2K/M**  
Schematic sketches

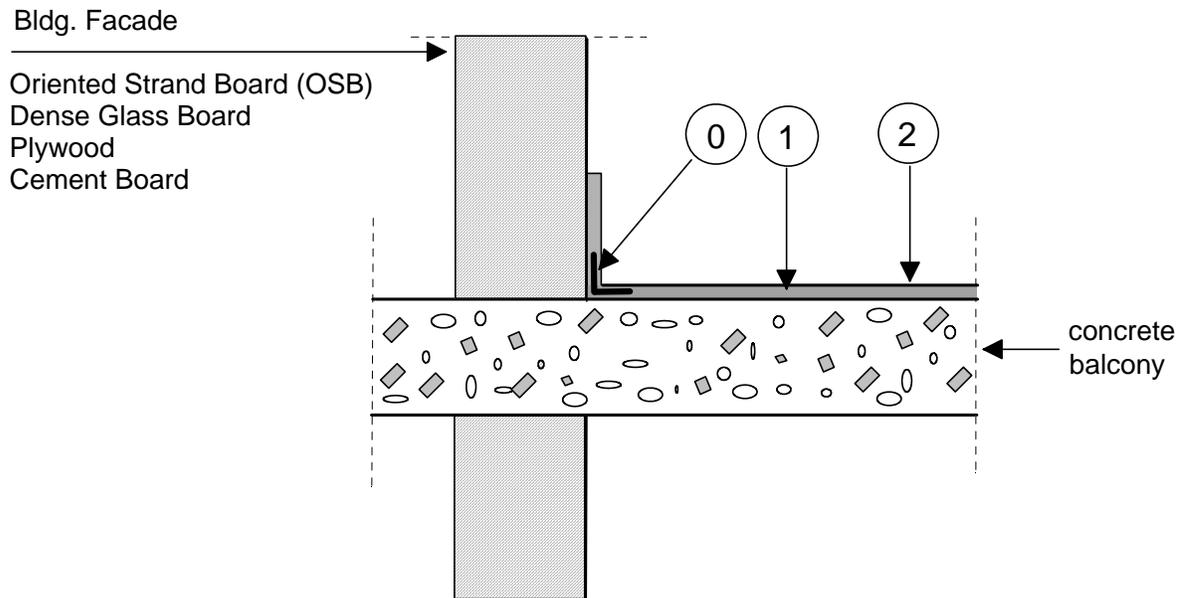


- ① Install AQUAFIN JOINT SEALING TAPE-2000 or CRACK SEALING TAPE, to seal wall/slab construction joint and JOINT SEALING TAPE-2000-S to seal expansion joints. Refer to No. 1.1.3-15 for details.
- ① **Above ground + elevated:** Apply AQUAFIN-2K/M to interior surfaces in 1 - 2 coats at a total thickness of 60 mils [1/16"] (1.6 mm).  
**Inground:** Apply 1st (base) coat AQUAFIN-1K at 60 mils (1.6 mm) and 2nd (top) coat AQUAFIN-2K/M at 60 mils [1/16"] (1.6 mm) thickness to walls and floor, wherever rain or groundwater (negative side) pressure can be expected. See application rates on AQUAFIN-2K/M data sheet.  
**Note:** Install leveling coats (i.e. "mud bed", "brown coat", plaster, etc.) prior to the application of AQUAFIN-1K and/or AQUAFIN-2K/M.
- ② Apply flexible thin set tile mortar over AQUAFIN-2K/M.
- ③ Install ceramic or glass tiles and tile grout as per tile manufacturer. Observe TCNA Guidelines for movement joint spacing.

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## WATERPROOFING/PROTECTING OF NON-TILED BALCONY - AQUAFIN-2K/M

Schematic sketches



- ① Install AQUAFIN JOINT SEALING TAPE-2000 or CRACK SEALING TAPE, to seal wall/slab construction joint and JOINT SEALING TAPE-2000-S to seal expansion and movement joints and cracks. Refer to No. 1.1.3-15 for details.
- ① Apply AQUAFIN-2K/M to slab and wall surfaces in 2 coats at a total thickness of 1/16" [60 mils] (1.6 mm).
- ② Protect AQUAFIN-2K/M surface with AQUAFIN-CS/250 clear acrylic sealer or AQUAFIN-Color-Seal pigmented sealer to match existing color of 2K/M.

**Note:**

If necessary pitch to drain using MORTAR-LN, QUICK-Patch or MORTAR-Screed.