AQUAFIN-IC

CEMENTITIOUS CRYSTALLINE PENETRATING WATERPROOFING

Typical Waterproofing Specifications

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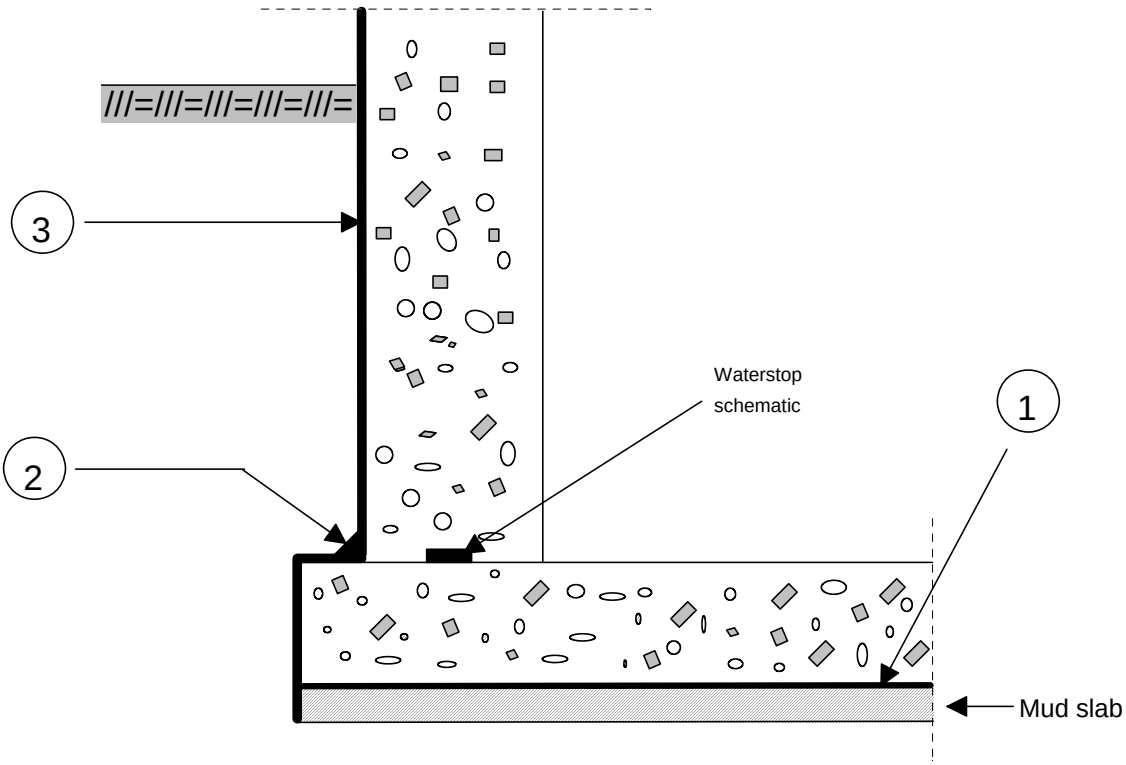
Note: These specification sketches have been prepared with our best knowledge and experience available at the time of publishing. As technology advances and construction methods change we may have to update them. We therefore kindly ask the user to check the date on this page of this issue and to re-check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

EXTERNAL WATERPROOFING OF BELOW GROUND CONCRETE WALL & SLAB

AQUAFIN-IC CRYSTALLINE WATERPROOFING

Schematic sketches



① "Sandwich application": just prior to concrete pour, apply 1 coat AQUAFIN-IC in slurry or dry shake form at 2.25 lb/yd^2 (1.2 kg/m^2) to prewatered mud slab or underlying concrete. (Refer to Guideline No. G-002)

② Apply cove (seal strip) of AQUAFIN-MORTAR-IC at slab/wall joint.

③ Apply AQUAFIN-IC to vertical surfaces in 2 coats at 1.25 - 1.4 lb/yd^2 (0.75 kg/m^2) each.
Total application = 2.5 - 2.8 lb/yd^2 (1.5 kg/m^2)

Specifier can consider use of AQUAFIN-IC ADMIX liquid crystalline waterproofing admix where applicable.
Refer to standard specifications and product data sheet for further information.

AQ 10/06

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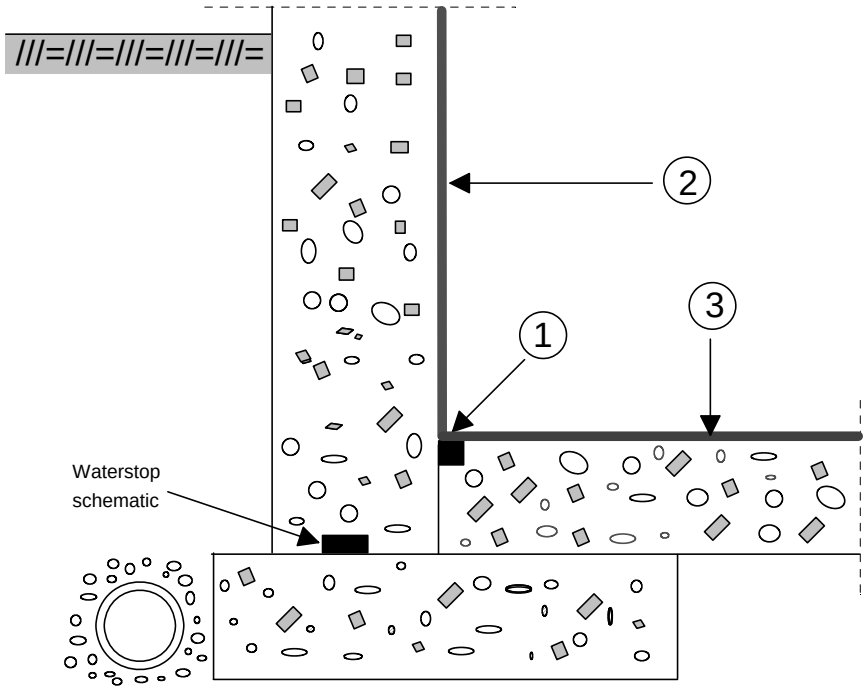
INTERNAL WATERPROOFING OF FOUNDATION CONCRETE WALL & SLAB

SUBJECT TO GROUND MOISTURE

AQUAFIN-IC CRYSTALLINE WATERPROOFING

Schematic sketches



① Seal strip: Prime cavity with 1 coat AQUAFIN-IC slurry at 1.4 lb/yd^2 (0.75 kg/m^2) and while still fresh, fill flush to surface with AQUAFIN MORTAR-IC.

② Walls: Apply 1 coat AQUAFIN-IC slurry at 1.4 lb/yd^2 (0.75 kg/m^2).

③ Slabs: Apply 1 coat AQUAFIN-IC slurry at 1.4 lb/yd^2 (0.75 kg/m^2).
Note: for basements being converted to offices or habitable areas that will receive carpeting, VCT, hardwood flooring, or similar, install AQUAFIN VAPORTIGHT COAT-SG2 or SG3 vapor and moisture emission barrier in lieu of AQUAFIN-IC if vapor emission exceeds 3 lbs/24 hrs•1000 ft^2 (0.6 g/hr •m^2) or >75% RH within the concrete.

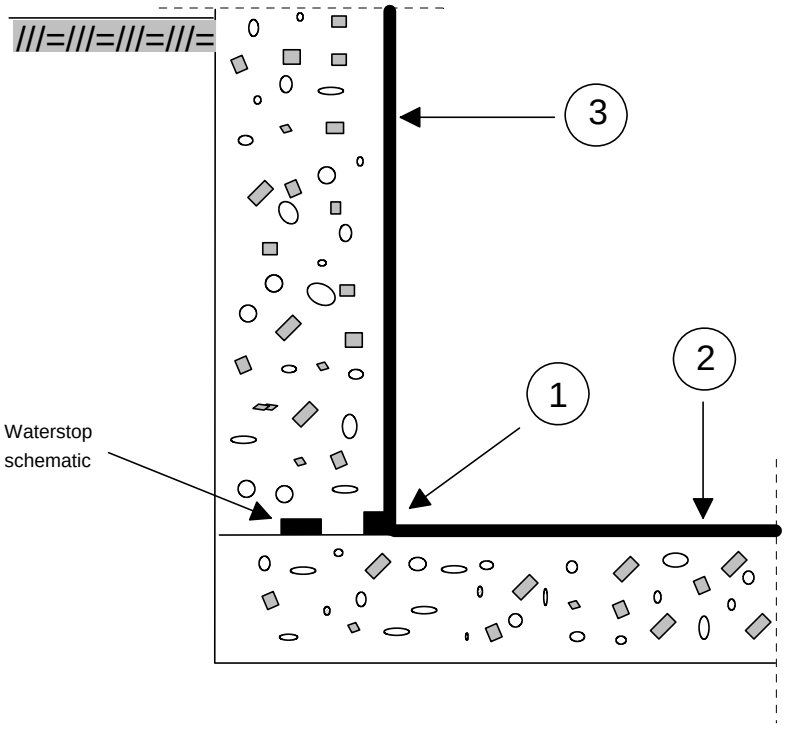
Note: In areas with poor drainage conditions or where high hydrostatic pressure is anticipated, apply a 2nd coat of AQUAFIN-IC at the rate of 1.1 - 1.4 lb/yd^2 (0.75 kg/m^2). Apply second coat while first coat is still "green" (tacky). Increase application rate for slabs to 2.0 lb/yd^2 (1.0 kg/m^2), applied in one coat. Refer to Specification No.2.1.1 - 3.

Refer to product data sheet for further information.

AQ 05/08

INTERNAL WATERPROOFING OF BELOW GROUND CONCRETE WALL & SLAB
SUBJECT TO HYDROSTATIC PRESSURE
AQUAFIN-IC CRYSTALLINE WATERPROOFING

Schematic sketches



① In case of leaking wall/slab joint, install reglet (seal strip) of AQUAFIN MORTAR-IC. Refer to Specification No. 2.1.1 - 9, Item 2.

② Apply 1 coat AQUAFIN-IC to slab at 2.0 lb/yd^2 (1.0 kg/m^2). For new construction apply in dry shake form. Note: for basements being converted to offices or habitable areas that will receive carpeting, VCT, hardwood flooring, or similar, install AQUAFIN VAPORTIGHT COAT-SG2 or SG3 vapor and moisture emission barrier in lieu of AQUAFIN-IC if vapor emission exceeds 3 lbs/24 hrs•1000 ft^2 (0.6 g/hr •m^2) or >75% RH within the concrete.

③ Apply AQUAFIN-IC slurry to vertical surfaces in 2 coats at 1.25 - 1.4 lb/yd^2 (0.75 kg/m^2) each. Apply 2nd coat while 1st coat is still "green" (tacky). Total application = 2.5 - 2.8 lb/yd^2 (1.5 kg/m^2)

Specifier can consider use of AQUAFIN-IC ADMIX liquid crystalline waterproofing admix where applicable. Refer to standard specifications and product data sheet for further information.

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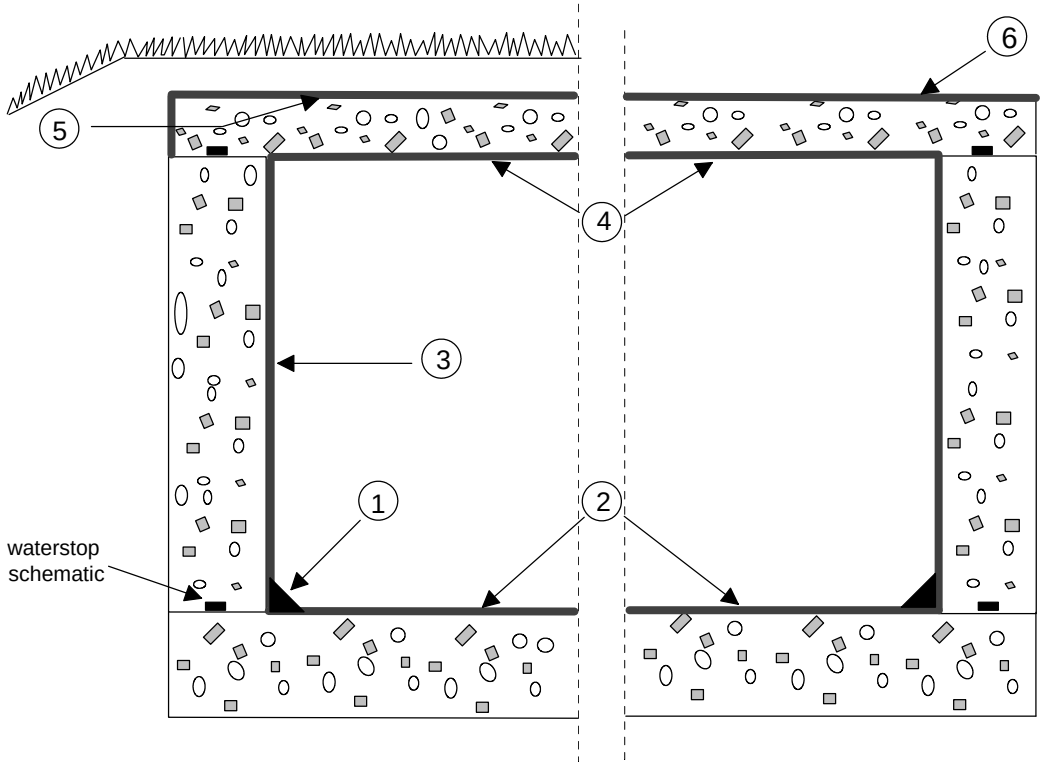
WATERPROOFING OF RESERVOIR / WET WELL

AQUAFIN-IC CRYSTALLINE WATERPROOFING

Schematic sketches



① Install cove of AQUAFIN MORTAR-IC to wall/slab joints (1 ½" x 1½" [38 x 38 mm]).

② Apply 1 coat AQUAFIN-IC slurry to slab at 2.0 lb/yd^2 (1.0 kg/m^2).

③ Apply AQUAFIN-IC to vertical surfaces in 2 coats at 1.25 - 1.4 lb/yd^2 (0.75 kg/m^2) each. Apply 2nd coat while 1st coat is still "green" (tacky). Total application = 2.5 - 2.8 lb/yd^2 (1.5 kg/m^2)

④ Corrosion protection: Apply 1 coat AQUAFIN-IC slurry to ceiling at 1.5 lb/yd^2 (0.8 kg/m^2).

⑤ For covered structures, apply 1 coat of AQUAFIN-IC to roof slab at 2.8 lb/yd^2 (1.5 kg/m^2), or alternatively AQUAFIN-2K/M at 1/16" to 3/32" thickness, depending on overlaying strata conditions.

⑥ For exposed structures, new construction, apply 1-2 coats of AQUAFIN-2K/M to roof slab at 1/16" - 3/32" (1.5 - 2.4 mm). For retrofit, apply AQUAFIN-2K/M as above or 1 coat AQUAFIN-IC at 2.0 - 2.8 lb/yd^2 (1.0 - 1.5 kg/m^2), depending on circumstances.

Note: Old, heavily corroded tank walls can be re-coated with AQUAFIN-1K at 100 mils (2.5 mm) thickness in lieu of AQUAFIN-IC.

Specifier can consider use of AQUAFIN-IC ADMIX liquid crystalline waterproofing admix where applicable.

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

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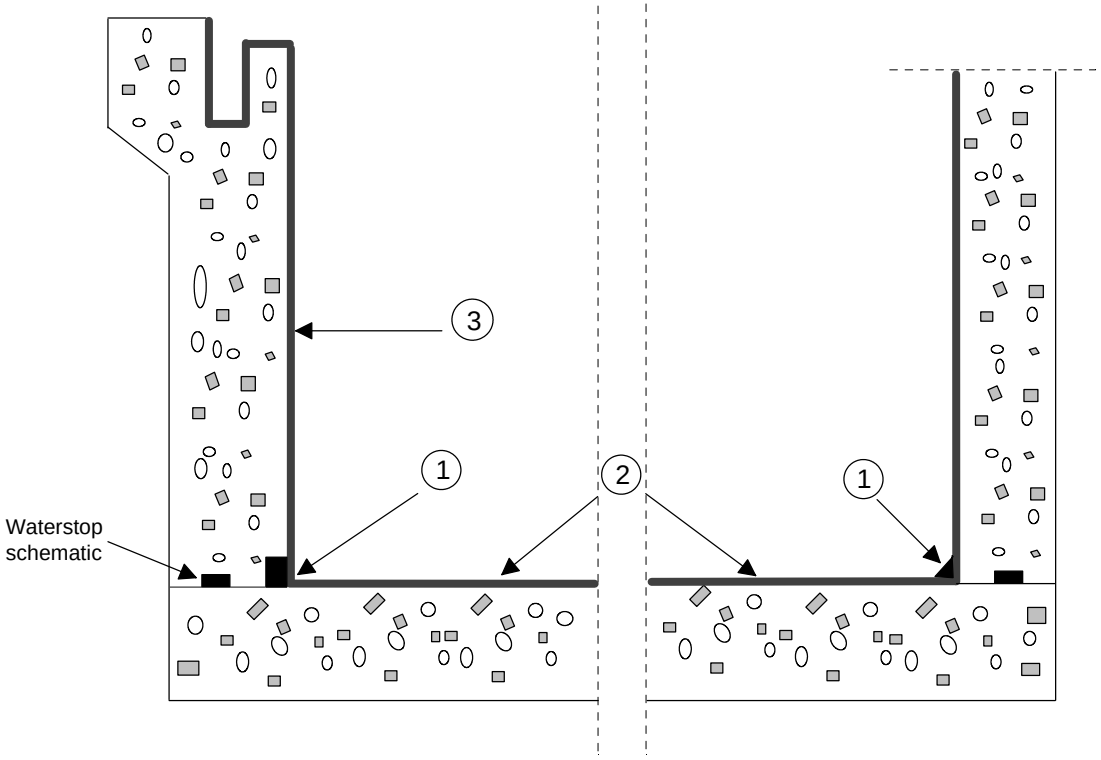
WATERPROOFING OF SEWAGE TANKS

AQUAFIN-IC CRYSTALLINE WATERPROOFING

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



① For added protection, install seal strip: Prime cavity with 1 coat AQUAFIN-IC slurry and while still fresh, fill flush to surface with AQUAFIN MORTAR-IC. Alternative, install cove with MORTAR-IC.

② Apply 1 coat AQUAFIN-IC slurry to slab at 2.8 lb/yd^2 (1.5 kg/m^2).

③ Apply AQUAFIN-IC to vertical surfaces in 2 coats at 1.4 lb/yd^2 (0.75 kg/m^2) each. Apply 2nd coat while 1st coat is still "green" (tacky). Total application = 2.8 lb/yd^2 (1.5 kg/m^2).

Note:

a) Repair static cracks with AQUAFIN MORTAR-IC .
b) Repair dynamic cracks and/or joints with AQUAFIN JOINT SEALING TAPE-2000 or 2000-S. See Specification No. 1.1.3 - 15.
c) For above ground tanks subject to movement use AQUAFIN-2K/M lining in lieu of AQUAFIN-IC. See Specification No. 1.1.3 - 6.
d) Repair honeycombs, spalled and heavily corroded areas with MORTAR/LN prior to application of AQUAFIN-IC.

Above applications apply to environments not exposed to hydrogen sulfide environments and closed tanks with sufficient vents.

Specifier can consider use of AQUAFIN-IC ADMIX liquid crystalline waterproofing admix where applicable.

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

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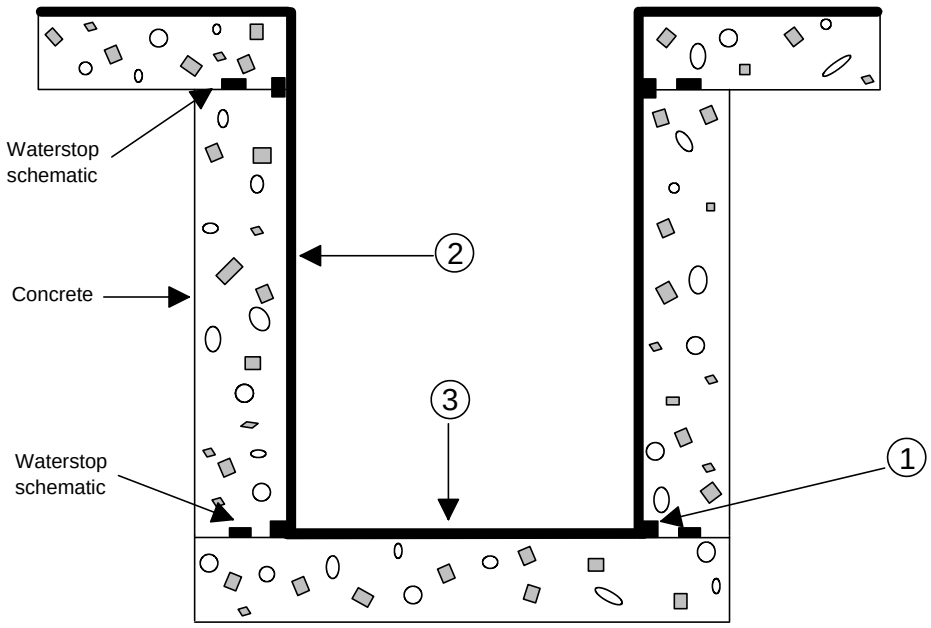
WATERPROOFING OF ELEVATOR, SUMP AND OTHER PITS

AQUAFIN-IC CRYSTALLINE WATERPROOFING

Schematic sketches



① For leaking joints, or joints without a waterstop, install seal strips: Rout (cut) out reglet 1" x 1" (25 x 25 mm), prime cavity with 1 coat AQUAFIN-IC slurry and while still fresh, fill flush to surface with AQUAFIN MORTAR-IC.
Note: Stop active leakage with AQUAFIN-PLUG-IC or FIX 10-S. If necessary use chemical grout injection.

② Walls: apply AQUAFIN-IC to vertical surfaces in 2 coats at 1.25 - 1.4 lb/yd^2 (0.75 kg/m^2) each. Apply second coat while first coat is still "green" (tacky). Total application = 2.5 - 2.8 lb/yd^2 (1.5 kg/m^2).
Note: Use AQUAFIN-1K for brick, rubble, cinder and CMU walls in lieu of AQUAFIN-IC.

③ Slab: apply 1 coat AQUAFIN-IC slurry at 2.0 lb/yd^2 (1.0 kg/m^2).

Specifier can consider use of AQUAFIN-IC ADMIX liquid crystalline waterproofing admix where applicable.
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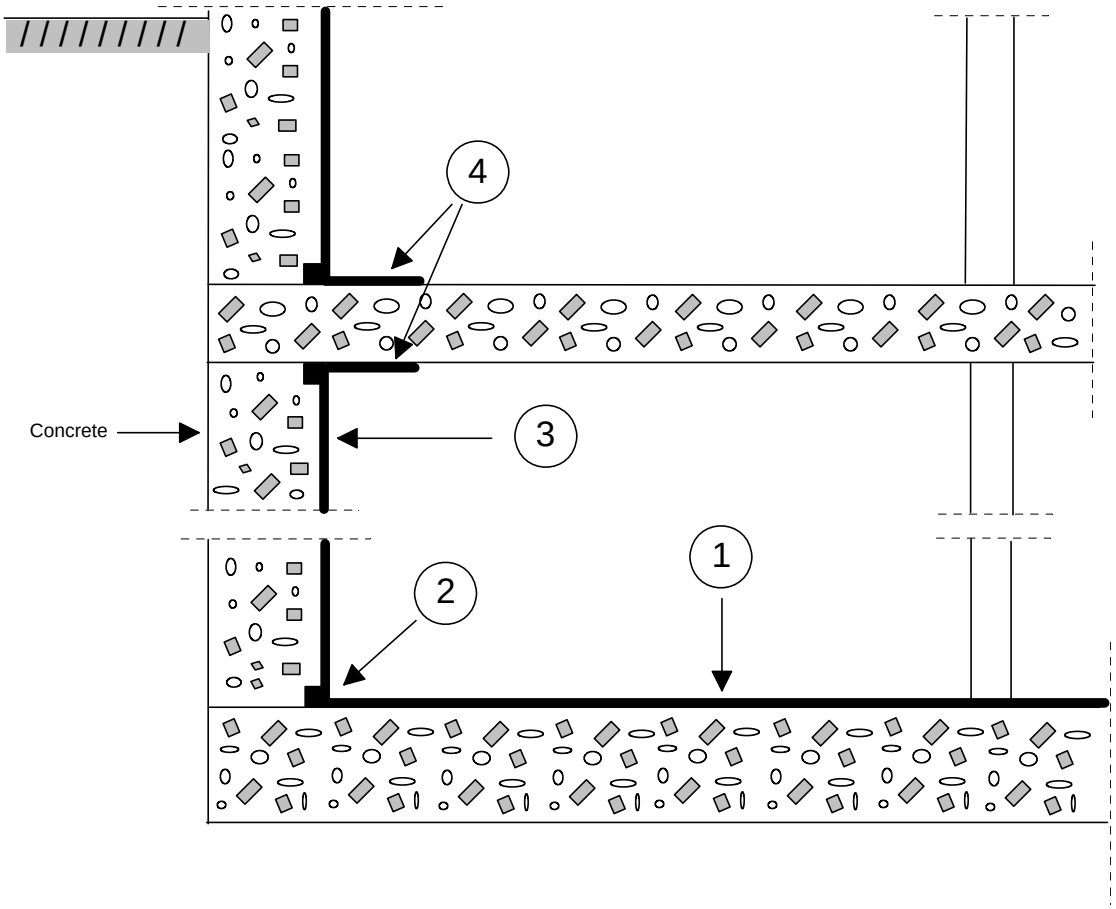
INTERNAL WATERPROOFING OF UNDERGROUND PARKING GARAGE

AQUAFIN-IC CRYSTALLINE WATERPROOFING

Schematic sketches



① Install AQUAFIN-IC to freshly poured slab in dry shake form at 2.0 lb/yd^2 (1.0 kg/m^2). (Consult Technical Guideline G001 for details.)

② Where waterstops are not installed or joint is leaking, rout out reglets along construction joints (1" x 1" [25 x 25 mm]). Prime cavity with one coat AQUAFIN-IC and fill flush to surface with AQUAFIN-MORTAR-IC.
Note: Stop active leakage with AQUAFIN-PLUG-IC or FIX 10-S. If necessary use chemical grout injection.

③ Apply AQUAFIN-IC slurry to vertical surfaces in 2 coats at 1.25 - 1.4 lb/yd^2 (0.75 kg/m^2) each.
Total application = 2.5 - 2.8 lb/yd^2 (1.5 kg/m^2)

④ Extend AQUAFIN-IC slurry in one coat at 2.0 lb/yd^2 (1.0 kg/m^2) approx. 2' (0.6 m) beyond wall/floor and wall/ceiling joints.

Specifier can consider use of AQUAFIN-IC ADMIX liquid crystalline waterproofing admix where applicable.
Refer to standard specifications and product data sheet for further information.

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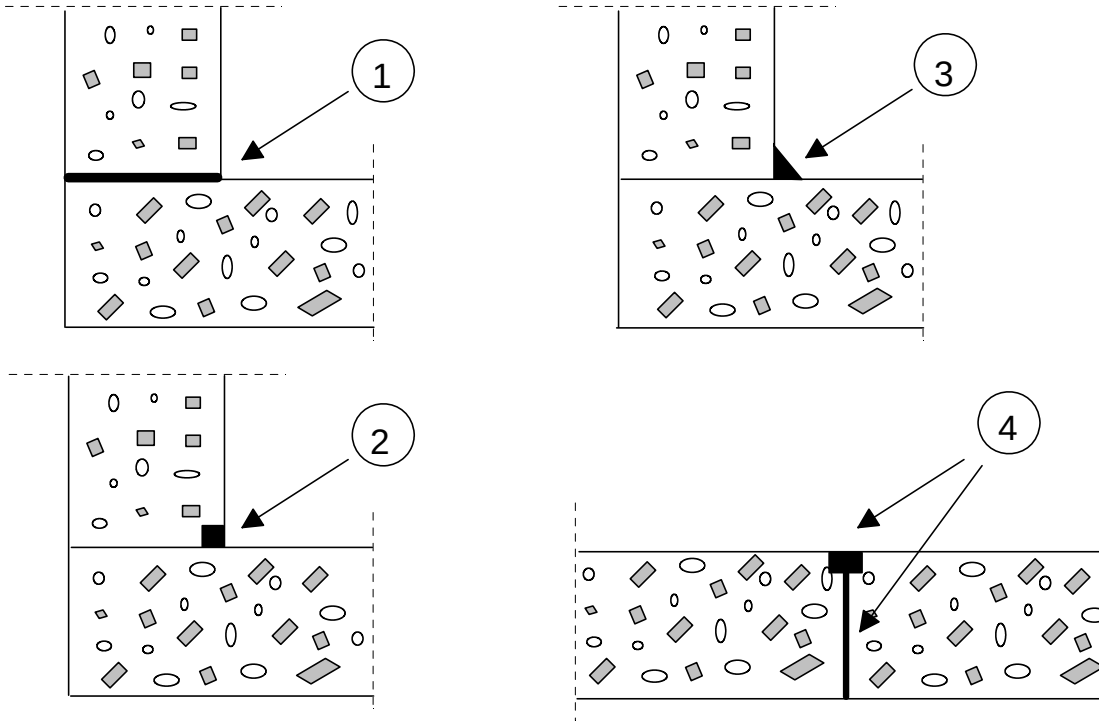
WATERPROOFING OF CONSTRUCTION JOINTS

AQUAFIN-IC CRYSTALLINE WATERPROOFING

Schematic sketches



The following alternative methods can be used where standard water stops cannot be installed or where additional waterproofing protection is desired:

① Apply 1 coat AQUAFIN-IC slurry at 2 lb /yd^2 (1.0 kg /m^2) to joint surface prior to pouring connecting section.

② Reglet (seal strip) 1" x 1" (25 x 25 mm): prime cavity with 1 coat AQUAFIN-IC slurry at 1.4 lb /yd^2 (0.75 kg /m^2) and fill flush to surface with AQUAFIN MORTAR-IC, approx. 1.0 lb/ft (1.3 kg/m).

③ Install cove (seal strip) 1.5" x 1.5" (38 x 38 mm) of AQUAFIN-MORTAR-IC, approx. 1.0 lb/ft (1.3 kg/m) at slab/wall joint.

④ Apply 1 coat AQUAFIN-IC slurry at 2 lb /yd^2 (1.0 kg /m^2) to joint surface prior to pouring connecting section, or if this is not feasible, rout out reglet(1" x 2" [25 x 50 mm]), prime cavity with 1 coat AQUAFIN-IC slurry at 1.4 lb /yd^2 (0.75 kg /m^2) and fill flush to surface with AQUAFIN MORTAR-IC approx. 2.0 lb/ft (2.6 kg/m).

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

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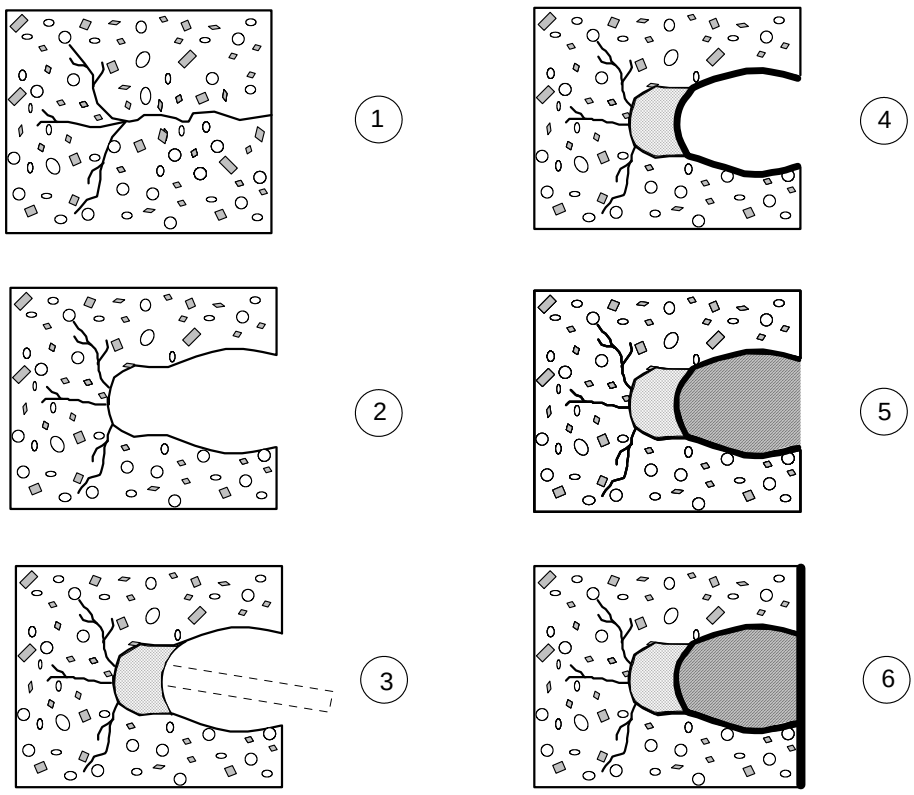
PLUGGING WATER LEAKS

Schematic sketches



① Locate source of leakage in the concrete.

② Rout out the leak in a U-shaped configuration to sound concrete, minimum 2" (50 mm) deep and 1" (25 mm) wide. Clean cavity and remove any excess water.

③ Form a plug with AQUAFIN-PLUG-IC or AQUAFIN FIX 10-S and press this into the cavity, filling to approx. 1" depth. Hold this in place for about 30 - 60 seconds, until it has set. In case of a strong water flow, insert a drain (i.e. 3/8" - 1/2" clear plastic pipe) into the cavity immediately before inserting the PLUG-IC or FIX 10-S.

④ When plug is fully hardened and leakage has stopped, remove any excess material and prime remaining cavity with one slurry coat of AQUAFIN-IC.

⑤ While slurry is still moist ("green") fill cavity flush to surface with AQUAFIN MORTAR-IC. Where a drain has been used, carefully remove drain soonest next day, or when mortar has reached at least 2/3 of its final strength, and plug the remaining hole as described above.

⑥ When mortar has set, apply surface waterproofing (AQUAFIN-IC, AQUAFIN-1K or AQUAFIN-2K/M) over concrete surface.

Refer to product data sheets for further information.

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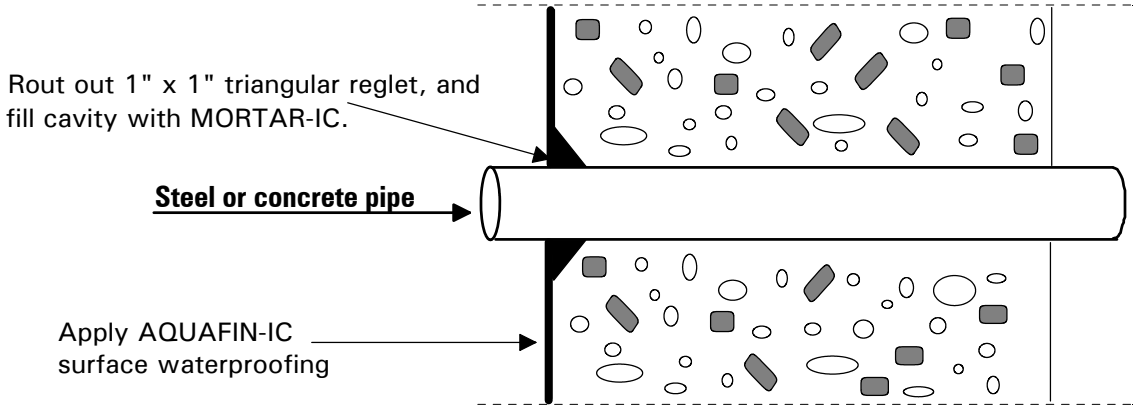
TYPICAL SEALING AROUND PIPE PENETRATIONS

AQUAFIN-IC

Schematic sketches

A. Sealing around steel or concrete pipes



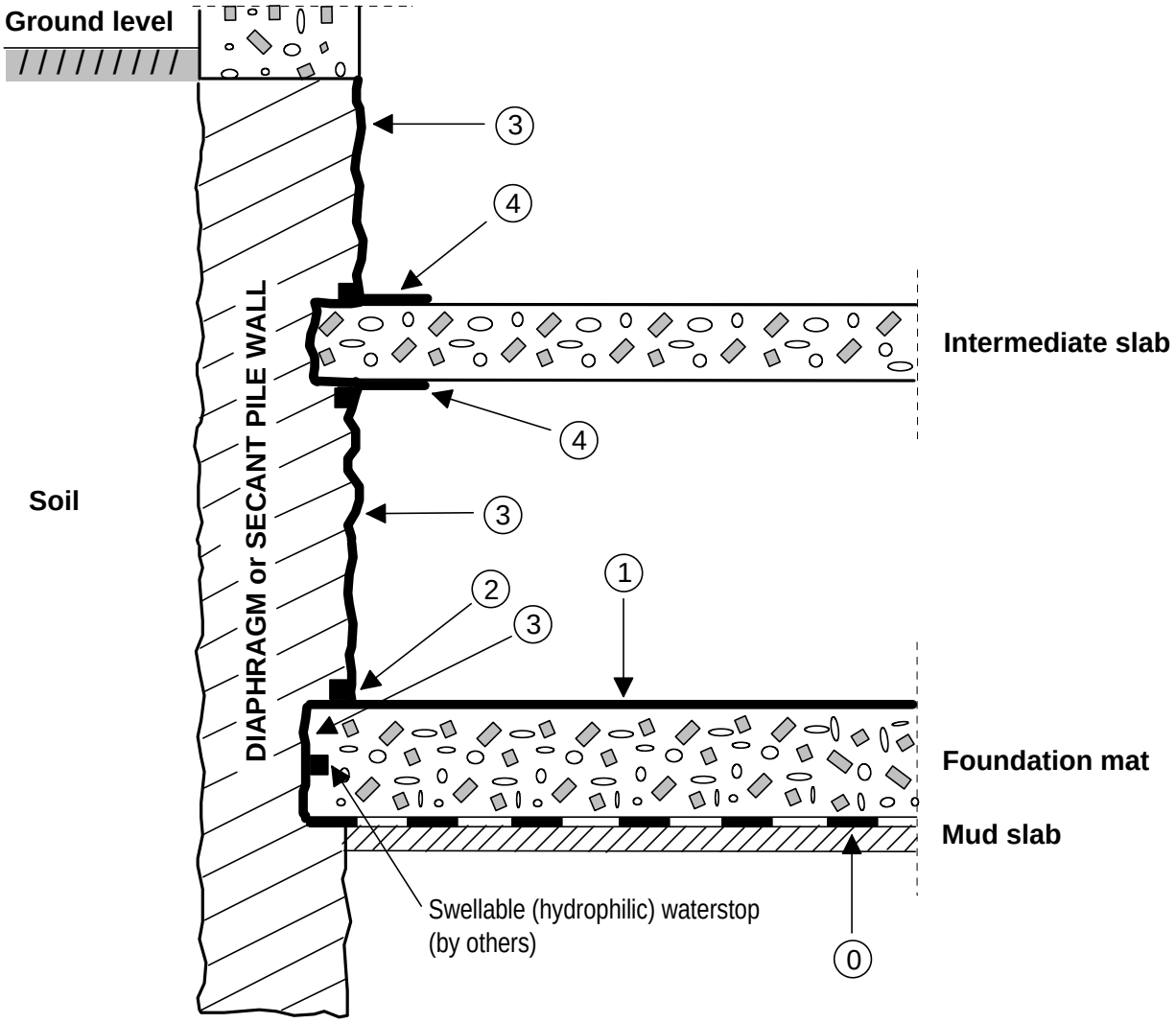
AQ 11/01

NOTE: Contact Aquafin Technical Department for PVC pipe penetrations with AQUAFIN-IC.

INTERNAL WATERPROOFING OF DIAPHRAGM OR SECANT PILE WALLS

AQUAFIN-IC CRYSTALLINE WATERPROOFING

Schematic sketches



⓪ Install underslab waterproofing membrane by others, or AQUAFIN-IC at 2.25 - 2.8 lb/yd^2 (1.2 - 1.5 kg/m^2) over mud slab.

① Install AQUAFIN-IC to freshly poured slab in dry-shake form at 2.0 lb/yd^2 (1.0 kg/m^2). (Consult Technical Guideline G001.)

② Where waterstops are not installed or joint is leaking, rout out reglets along construction joints (1 - 2" x 1 - 2" [25 - 50 x 25 - 50 mm]). Stop active leakage with AQUAFIN-PLUG-IC, prime remaining cavity with AQUAFIN-IC and fill flush to surface with AQUAFIN-MORTAR-IC. Where necessary use chemical grout injection.

③ Apply AQUAFIN-IC slurry to vertical surfaces in 2 coats at 1.25 - 1.4 lb/yd^2 (0.75 kg/m^2) each (total 2.5 - 2.8 lb/yd^2 (1.5 kg/m^2)).

④ Extend AQUAFIN-IC slurry in one coat at 2.0 lb/yd^2 (1.0 kg/m^2) approx. 2' (0.6 m) beyond wall/floor and wall/ceiling joints.

⑤ Seal leaking vertical construction joints with AQUAFIN MORTAR-LN. Seal horizontal construction joints in foundation mat with AQUAFIN MORTAR-IC as per Waterproofing Specification No. 2.1.1-9, item (4).

Alternative to (0) and (1): Add AQUAFIN-IC ADMIX liquid crystalline waterproofing admix to the concrete during batching. Refer to standard specifications and various product data sheets for further information.

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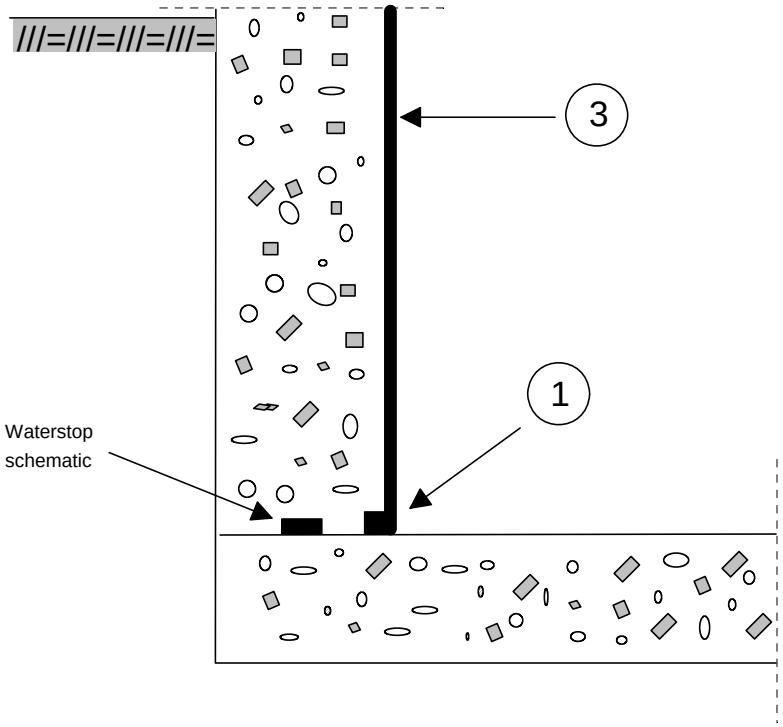
INTERNAL WATERPROOFING OF BELOW GROUND CONCRETE WALL
SUBJECT TO HYDROSTATIC PRESSURE
AQUAFIN-IC CRYSTALLINE WATERPROOFING

Schematic sketches



① In case of leaking wall/slab joint, install reglet (seal strip) of AQUAFIN MORTAR-IC.
Refer to Specification No.2.1.1 - 9, Item 2.

③ Apply AQUAFIN-IC slurry to vertical surfaces in 2 coats at 1.25 - 1.4 lb/yd^2 (0.75 kg/m^2) each. Apply 2nd coat while 1st coat is still "green" (tacky). Total application = 2.5 - 2.8 lb/yd^2 (1.5 kg/m^2)

Refer to standard specifications and various product data sheets for further information.

AQ 10/06