

Standard Specification for the application of Equus Schomburg Aquafin-2K/M Plus for tanking or underground waterproofing

Project:
Specification: P5700
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1.0 PREAMBLE:

This methodology is for the waterproofing of concrete tanking in underground situations using **Aquafin-2K/M Plus** waterproofing products. The specification will use Equus supplied products to ensure a watertight finish is achieved. **Aquafin-2K/M Plus** works by forming a watertight barrier which is flexible yet has very good adhesion to concrete and other mineral surfaces. **Aquafin-2K/M Plus** is composed of a cementitious powder and solvent free polymer liquid. It also uses a strong flexible tape over joints and cracks. **Aquafin-2K/M Plus** is a good solution for in depth detailing as it can be applied by brush, roller or trowel.

2.0 SURFACE PREPARATION:

2.1 General Responsibility:

Unless expressly agreed otherwise at the time of contract pricing, all work in this section shall be the responsibility of the Main Contractor, whether carried out by his own staff, other sub-trades or the Specialist Finishes Sub-Contractor.

2.2 Concrete Preparation:

Concrete structures must be specifically engineered to meet the requirements of the New Zealand Building Code.

When applying to existing substrates and structures, they must be thoroughly inspected to ensure that they will not affect the performance of the membrane when applied.

Curing times vary dependent on location, mixes and climate conditions. After the slab has been poured allow enough drying time, generally between 14 – 28 days. To verify concrete has sufficiently dried, a measurement can be taken using a hygrometer. A maximum relative humidity of 75% is required, measured at the time of membrane application.

It is recommended that curing compounds are not used. When they are, ensure that all traces of the compound are gone or removed.

The concrete shall be finished to NZS3114:1987 U3, with a light trowel texture.
The concrete shall have all ridges and protrusions stoned flush.

2.3 Concrete Blocks/Insitu Walls:

- .1 These shall be cleaned and free from contaminants. Water blast at 3000 psi.
- .2 Surfaces shall be free of foreign film or substance left on the walls that will prevent adhesion of the specified system.



- .3 All depressions and very rough concrete surfaces shall be flushed with a patch plaster using **ASOCRET KS/HB** gauged plaster mix and allowed to cure at least 48 hours before overcoating.
- .4 All ridges shall be removed, and all bug holes filled with **ASOCRET KS/HB** patch plaster.
- .5 Allow to form a cove at the floor wall junction with **ASOCRET BIS 5/40**.

3.0 AQUAFIN 2 K/M MEMBRANE APPLICATION:

3.1 Priming:

Prime all surfaces to be treated with **Aquafin-2K/M Plus** with **Aquafin Primer** at a rate of 4-5 m² per kg by brush or roller.

3.2 Tape Application:

Apply an **Aquafin-2K/M Plus** bandage using ASO 2000 joint tape to all floor/wall junctions, wall/wall junctions and cracks, ensuring the **Aquafin-2K/M Plus** and joint tape is well packed into the junction. Apply a bandage around all pipe penetrations also.

3.3 Key Coat:

ASOCRET KS/HB will be used as a slurry and brushed on all surfaces; this is a cementitious slurry that will assist tying the **Aquafin-2K/M Plus** waterproofing coat to the prepared substrate.

3.4 Membrane Application:

Apply two full coats of **Aquafin-2K/M Plus**, mixed as below, At the spreading rate of 2.0 – 2.25 kg per sqm per coat. Do not apply **Aquafin-2K/M Plus** thicker than specified would result in cracks in the top surface during initial setting.

.1 Aquafin-2K/M Plus mixing instructions:

Pour 2/3 of the liquid component **Uniflex M** into a clean container and add 1 x 25 kg bag of **Aquafin-2K/M Plus** powder. Mix to a lump free consistency. Add the remaining Uniflex M and re-beat. The area to be treated must be pre-wetted (not wet, but damp). Apply one coat of mixed **Aquafin-2K/M Plus** at the spreading rate of 2.0 – 2.25 kg per sqm metre. Into the still-wet first layer embed **ASO Joint tape 2000** pressing firmly into the wet **Aquafin-2K/M Plus**. Use correct detail pieces in all internal and any external corners.

Apply a second coat of **Aquafin-2K/M Plus** as soon as the first coat has tacked off enough that it does not deform under application. Extended drying conditions may occur in these areas due to poor air circulation.

3.5 Protection and Drainage layer/ Backfilling:

Drainage is required to prevent excessive hydrostatic pressure against the membrane. **Equus Danosa Danodren H15** Protection and Drainage mat is required to be laid over waterproofing membrane in vertical situations. Provide a drain coil with a minimum diameter of 100 mm (incorporating a filter material) to the base of the foundation. The outlet is required to discharge to an approved outlet. Installation shall be in accordance with E2/AS1 External Moisture of the New Zealand Building Code with provision for cleaning.

The membrane must be protected from being damaged by abrasive materials, expansive soils and during back filling. This can be achieved by installing a barrier such as fibre cement boarding or polystyrene.



Free draining granular backfill is required behind the tanked wall and around the drain coil. An impervious top coating is required above the free draining granular backfill to manage the surface water away from the building with a minimum fall of 1:30.

Equus Industries Limited must be consulted regarding the design and suitability of membrane barriers.

4.0 MAINTENANCE AND WARRANTY:

4.1 Maintenance:

Equus Industries Limited recommends as normal maintenance, a certified installer inspect annually to ensure weather tightness and durability of the following areas;

The top edge of the membrane, sheet protection at that top edge, the subsoil drainage is not blocked and is free draining to an approved outlet.

Check all associated building elements that can impact on the durability of the membrane.

4.2 Warranty:

The **Equus Aquafin-2K/M Plus** waterproofing system described in this specification may be warranted for the period of up fifteen (15) years from the date the application is completed.

Such warranty is issued by the Approved Equus Applicator carrying out the work, and is backed by the manufacturer as to the suitability for use of the materials supplied, provided that:

- a) All specified work is carried out by the approved Equus Applicator.
- b) It must be installed in accordance with the manufacturer's technical literature.
- c) The warranty is issued in conjunction with the appropriate maintenance statement.

The period of warranty is determined by the situation of the installation, e.g.: old or new, substrate, plain roof or open plant roof etc. The warranty period shall be determined for any contract in consultation with the Manufacturer or his representative.

The warranty is provided to the client by the Equus Applicator carrying out the work and is backed by the Manufacturer as to the fitness for the purpose of the materials supplied for the contract.

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