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SCHOMBURG Building Product Systems

Additional technique practice information

AQUAFIN®-2K/M

Tropical climate application of AQUAFIN®-2K/M (positive waterproofing)

Compliance: AbP (german standard for building products)
DVGW W270 and W347 (potable water approval)
NSF-standard

General recommendations

The following recommendations are provided as general guidelines for the application of AQUAFIN-2K/M [Note 1].

a) The application of AQUAFIN-2K/M should be carried out by professional applicators of good repute and approved/licensed by SCHOMBURG (please ask your local distributor or representative for applicator list).
b) The product should be kept in its original packaging and elevated from the floor on pallets (avoid direct contact with the floor).
c) AQUAFIN-2K/M, mixing and application equipment should be stored away from direct sunlight in a cool, dry and well ventilated area. Temperature controlled warehousing is preferred. These conditions should be maintained for a minimum period of 1 day prior to application to allow the product, tools and equipment temperatures to cool down before application.
d) Make available -at time of application- ample product, sufficient workforce and appropriate tools/equipment to minimize time wasted between the mixing and application cycles.
e) Keep mixing and application areas shaded -where possible- and avoid application during temperature peaks of the day.

Health & safty

Adopt health & safety regulations in accordance with local laws. Care should be taken when handling AQUAFIN-2K/M as it is may cause irritation due to its cementitious nature (please refer to Material Safety Data Sheet for specifics).

As typical on most job sites, applicators should wear protective clothing and gloves. Those handling and mixing AQUAFIN-2K/M should wear a face mask. Safety shoes and helmets must be worn by staff at all times.

SCHOMBURG recommends the enforcement of stringent health and safety measures on all job sites.

Tools and equipment

The following is a basic list of tools & equipment that may be necessary for the application of AQUAFIN-2K/M.

Surface preparation:	Stiff wire brushes, electric grinders, high pressure water jetting equipment or grit blasting equipment.
Product mixing:	Slow speed, heavy-duty drill (RPM: 300 - 400) attached with SCHOMBURG paddle stirrer or an approved continuous mixing apparatus (for large area applications). Clean plastic or metal buckets with suffice capacity. Clean pre-measure containers for water measurement.
Application equipment:	Soft-bristled brushes, Rollers or SCHOMBURG approved peristaltic spray equipment (for large area applications).
Finishing:	Plastic, wood and steel finishing trowels.

Surface preparation

Concrete: All adhesion preventing substances such as form oil, curing compounds, laitance, oil, grease or paint, on the substrate surface should be fully removed using one of the following techniques - in order of preference:

- High pressure water jetting
- Grit blasting
- Stiff wire brushes
- Grinders

Prior to AQUAFIN-2K/M application all surfaces should be fully dampened to avoid premature water loss to absorbent substrates. It is important that any surface water be removed before application of AQUAFIN-2K/M.

Swimming pools & wet rooms: In addition to the previous instructions it is essential to note that when AQUAFIN-2K/M is to receive tiling with a thin bed adhesive (UNIFIX-2K or UNIFIX-2K/6) it is necessary the surface be levelled out for ease of subsequent tile fixing.

Re-tiling over existing tiles/mosaics: To avoid adhesion failures it is essential that all traces of dirt, dust, laitance, mildew, mould, paint, oil or grease be removed. AQUAFIN-2K/M exhibits excellent adhesion to glazed tiles.

Wood: Wood is a weak substrate for AQUAFIN-2K/M and therefore not a suitable surface.

Gypsum board: Surfaces should be free from paint or water-repelling impregnations. Wipe clean surfaces with moist cloth and let dry before application of ASO-UNIGRUND (Please refer to data sheet and method statement for specifics). AQUAFIN-2K/M-application to start after ASO-UNIGRUND has dried. In any case it is recommended that a test area is sampled out for suitability.

PVC and stainless steel: Under no circumstance should AQUAFIN-2K/M be applied on painted surfaces. All surfaces are to be sanded down and degreased with acetone or iso-propanol. Wipe surfaces with dry cloth before application of AQUAFIN-2K/M to fix ASO-JOINT-TAPE 2000/S (Elastomeric seal for construction/movement of joints) or ASO-JOINT-Sleeve for pipe or drainage penetrations.

Steel, Copper, Zinc & Aluminium: All rust and scale should be removed and a surface cleanliness achieved in accordance with SA 2 $^{1}/_{2}$ requirements. Wipe clean immediately after shot/grit blasting with a dry cloth and apply-where necessary- one coat of ASODUR-GBM, broadcast with clean quartz sand to form a rough surface. Once dry commence immediately with AQUAFIN-2K/M application and fix ASO-JOINT-TAPE 2000-S or ASO-JOINT-Sleeve for pipe or drainage penetrations.

Surface repairs

Concrete: It is important to fill out blow holes and honeycombs and replace spalls with an appropriate cementitious repair product such as ASOCRET-FM40 (refer to data sheet and method statement). Use as suitable to project requirement FIX 10-S, AQUAFIN-P1 or AQUAFIN-P4 to stop water seepages.

Re-tiling over existing tiles/mosaics: It is essential that all loose tiles be reinstated into position using one of SCHOMBURG´S UNIFIX-tile adhesives before commencing with AQUAFIN-2K/M application. Broken tile edges must be repaired with an appropriate cementitious repair product such as ASOCRET-RN or ASOCRET-FM40 (refer to data sheets and method statements).

Product preparation and application

General

AQUAFIN-2K/M consists of two components:

Powder component A, labelled AQUAFIN-2K/M in a paper bag.
Liquid component B, labelled UNIFLEX-M in a plastic pail.

It is important to note that no part mixing is allowed. Only full pack/s should be mixed at a time.

Mixing

Pour approximately two thirds of liquid component (B) into mixing vessel with sufficient capacity.

For brush and spray applications when temperatures are 35° C or higher, up to 3% by weight (210 ml for 7 kg packs and 1.05 litres for 35 kg packs) of clean cool water can be added to the liquid component (mixed with the drill for 20 to 30 seconds) prior to the addition of the powder component (B).

Gradually add the entire powder component (A) while mixing (use the SCHOMBURG Paddle stirrer). Once a lump free, consistent mix is achieved add the remaining liquid component B (UNIFLEX-M) and continue to mix for 3 to 4 minutes vigorously making sure the entire constituents at the edges and bottom of the mixing vessel are stirred. The resultant mix should be consistent and lump-free slurry.

Product application

General

AQUAFIN-2K/M is typically applied in two coats. It is important that the following rules be adhered to:

A) Ensure the surface is moist prior to application.

B) Corners (vertical/horizontal joining) should be sealed using ASO-JOINT-TAPE 2000 or by forming a 4 cm concave mould using pre-bagged ASOCRETE-RN or site prepared ASOPLAST-MZ re-profiling mortar (refer to data sheets and method statements).

C) Maximum thickness per layer = 1mm (2 kg/mm^2). This is to avoid crack formation.

D) Minimum waiting time between coats 1^1/$_2$ hours at 35° C (or 4 hours at 20° C) in ventilated areas. In closed areas such as water tanks, longer waiting periods may be necessary. Always ensure a dry surface is attained before proceeding with subsequent coat.

E) In case of brush application, each coat should be applied at right angles to the previous coat direction.

By brush or trowel

The application of AQUAFIN-2K/M is a simple brush or trowel application.

Use soft bristle brush or 1^1/$_2$ mm - 2 mm notched steel trowel.

Use a finishing trowel immediately after application for improved surface finish.

By spray

SCHOMBURG recommends the use of peristaltic motion spray pumps which are the most appropriate, practical and economic method for AQUAFIN-2K/M application on large area applications. Please refer to SCHOMBURG for list of approved spray equipment.

Cleaning

Water can be used for cleaning of unhardened material. Mechanical cleaning and/or acid cleaning are the only methods for removal of hardened materials.

Curing

Unlike other cementitious based materials, AQUAFIN-2K/M is a self curing product and does not require any post curing.

(Note 1)
As each site will have its unique conditions, SCHOMBURG -which does not have any control on actual site events, surface preparation or application procedures- therefore providing the above as recommendations without any guarantee. Alternative application methods must be pre-approved by SCHOMBURG in writing.

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