MYK SCHOMBURG

High-performance Construction Chemicals

Technical Data Sheet

MYK AQUAFIN® - UM

Flexible Cementitious Protective Coating

Properties:

- Waterproof membrane
- Applied above or below grade
- Elongation up to 30%
- Crack bridging
- Horizontal, vertical, or overhead applications
- Exterior (positive side) or interior (negative side) waterproofing of new or old below grade foundations
- Balconies, plaza decks, in combination with a UV protection
- Underneath tile mortars (showers, sanitary rooms, kitchens, pools, etc.)
- Water, wastewater, sea water and marine aquarium tanks and other reinforced concrete structures
- Solvent free - Environmentally friendly
- No priming necessary in most cases
- Breathable (not a vapor barrier)
- Applied to moist/damp substrates
- Resists abrasion, mechanical wear & deicing salts
- Stands up to pedestrian and light traffic
- Permanently flexible
- Resists strong hydrostatic pressure (tested up to 50 m water head, positive side)
- Self curing
- Active barrier to carbon dioxide (CO2).

MYK AQUAFIN®-UM is a economic cementitious, polymer dispersion based highly flexible protective coating and waterproof barrier. This product is two-component and resistant to water, moisture and abrasion. Its liquid mixing component is solvent free. MYK AQUAFIN®-UM is a stand-alone product. It can be top or overcoated with flexible or rigid mortars, stuccos or coatings for uniform appearance. It bridges shrinkage cracks. Larger cracks, static (non moving) or dynamic (moving), can be sealed with MYK ASO®-Dichtband 2000 or MYK ASO®-Dichtband 2000/S.

Technical data:

All data are averages of several tests under laboratory conditions. In practice, climatic variations such as temperature, humidity, and porosity of substrate may affect these values.

Mixing ratio:	25 kg powder (comp. I) to 8.33 kg liquid (comp. II)
Permeability:	up to 50 m head pressure (positive side).
Water vapor diffusion μ-value:	2000
Adhesive strength:	1.0 N/mm2 @ 28d
Tensile elongation:	30% @ 20°C

Surface preparation:

The substrate must be sound, clean, and free from voids, gaping cracks or ridges and open pored (like fine sand paper). Remove bondbreakers, such as oil, grease, dirt, loose particles, remains of form oils, water repellents, rust or other coatings by waterblasting or wet or dry sandblasting.

Repair holes, defects, irregular surfaces, weak mortar joints, etc. with a patching mortar.

Round edges at vertical external joints.

Close large open pores and joint recesses of CMU blocks and joint unevenness in brick walls with sand/ cement mortar before applying MYK AQUAFIN®-UM.

Pre-water substrate (excluding drywall or similar) with clean water to saturated surface dry (SSD) condition, with no standing surface water.

Seal dry, dusty or very absorptive surfaces (i.e. drywall, gypsum) with one coat Liquid component, diluted with water 1:4 to 1:5.

A. Mixing ratio by weight:

25kg powder to 8,33kg liquid

B. Mixing ratio by volume: approximately

2 parts powder to 1 parts liquid.

Pour MYK AQUAFIN®-UM liquid into a clean container, add MYK AQUAFIN®-UM powder and stir to a lump free creamy consistency with a strong, slow speed (300 rpm) mechanical mixer.

NOTE: Do not apply MYK AQUAFIN®-UM at temperatures below 5°C.

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At high temperatures, i.e. 30°C and above, protect application from direct sun and wind to prevent premature surface drying and shrinkage cracks.

Apply material in 2 (two) coats minimum.

MYK AQUAFIN®-UM may be applied by brush, roller, trowel or appropriate compressed-air spray equipment. Surface can be left brushed or smooth troweled, depending on type of application and project specifications.

Do not pre-dampen brush or roller with water. Quantities are dependent on the amount of protection desired.

Horizontal and vertical joints:

Seal horizontal wall-floor joints and internal vertical corners with ASO®-Joint-Tape 2000. Alternative: form cove (minimum 40 x 40 mm) with cement mortar.

Static cracks greater than 1.0 mm:

Repair static cracks >1.0mm width with ASO®-Dichtband 2000, or rout (cut) out and fill with ASOCRET-RN and cover with MYK AQUAFIN®-UM, reinforced with MYK AQUAFIN®-2K-FABRIC.

Dynamic cracks and joints:

Seal dynamic cracks and expansion joints with ASO®-Joint-Tape 2000/S

Positive side waterproofing 1.5 – 2.5 mm:

Apply MYK AQUAFIN®-UM in two coats as specified. Apply the second coat (or multiple coats) as soon as the first coat has sufficiently hardened or wait until next day.

Negative side waterproofing 2.5 mm:

Apply 1st coat with MYK AQUAFIN®-1K at 2 Kg/sq. mt.

Apply 2nd coat with MYK AQUAFIN®-UM at 3 Kg/sq. mt.

EXPOSURE*) OF APPLICATION TO:

rain, vertical surfaces, after approx. 3 hrs

rain, horizontal surfaces, minimum 6 hrs

foot traffic after approx. 1 day

tile mortar and tiles after approx. 1 day

hydrostatic pressure after reaching Shore

A Hardness >85 (between 3 - 7 days)

back filling after approx. 3 days

*) at 20°C and 60% humidity.

Clean tools and equipment with water immediately after use. Cured material can only be removed mechanically.

Self curing under normal conditions. Provide suitable protection against extreme weather conditions while setting.

- Attach drainage and protection boards after full curing of application (after 3 days).
- The cured application can be troweled over with parging (rendering/ plaster) after 1 day or painted with a vapor open ("breathable"), solvent free paint (non silicate) after 3 days (at 20° C).
- Do not expose the application to water during the setting time.
- Expect prolonged setting and hardening time in rooms with high humidity, poorly ventilated areas and corners (i.e. water tanks).
- Negative water pressure, if exposed to freezing, can create spalling of the application.
- If application is exposed to intense sunlight work against movement of sun.
- Carbonation protection and carbondioxide-screen: 1 mm MYK AQUAFIN®-UM thickness warrants the same protection as 30 cm of concrete.

Limitations:

- Do not use in contact with alkali sensitive metals, such as copper, aluminum, galvanized or zinc treated metal. Protect and seal metal first with a primer
- MYK AQUAFIN®-UM has a limited UV stability. Long term exposure to direct sunlight may lead to decomposition of the polymer.

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