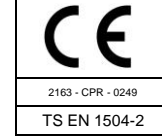




## Technical Data Sheet

# BAYCOSEAL-UM

## Flexible cementitious waterproofing coating



### Description:

BAYCOSEAL-UM is an economic cementitious, polymer dispersion based, highly flexible waterproofing coating.

### Areas of Application:

BAYCOSEAL-UM can be used to waterproof,

- Water tanks, wastewater, sea water and marine aquarium tanks,
- Balconies, plaza decks, in combination with UV protection,
- Underneath tile mortars (showers, sanitary rooms, kitchens, pools, etc.),
- Wet areas such as baths, toilets, kitchens and laundries,
- Any concrete structures and can be applied above or below grade.

### Properties/Advantages:

This product is two component and resistant to water, moisture and abrasion. Its liquid mixing component is solvent free. BAYCOSEAL-UM is a stand-alone product. It can 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 BAYCO-JOINT-TAPE-2000.

Advantages of the material are:

- Waterproof membrane.
- Applied above or below grade.
- Elongation up to 40%.
- Crack bridging.
- Horizontal, vertical and overhead application.
- Exterior (positive side) or interior (negative side) waterproofing of new or old below grade foundations.
- Can be used at balconies, plaza decks, in combination with UV protection.

- Can be used at underneath tile mortars (showers, sanitary rooms, kitchens, pools, etc.).
- Can be used at water, wastewater, sea water and marine aquarium tanks and other reinforced concrete structures.
- Solvent-free- environmentally friendly.
- No priming is necessary in most cases.
- Breathable (not a vapor barrier).
- Can be applied to moist/damp substrates.
- Resists abrasion, mechanical wear and deicing salts.
- Stands up to pedestrian and light traffic.
- Permanently flexible.
- Resists strong hydrostatic pressure (tested up to 50 m. water head, positive side).
- Potable water approval acc. to BS 6920-1.
- Active barrier to carbon dioxide.

### Technical Data:

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

Mixing ratio: 25 kg (powder)/10 kg (liquid)

Adhesion strength: approx. 1,0 N/mm<sup>2</sup>

Crack bridging: 1,14 mm (ASTM C 836:95)

Tensile strength: 6,0 N/mm<sup>2</sup>  
(ASTM D 412-98a)

Elongation: 37% (ASTM D 412-98a)

Water

permeability: Nil at 5 bar (BS EN 12390)

Water vapor

diffusion  $\mu$ -value: 2000

### Packaging:

35 kg set (25 kg sack + 10 kg pail)

### Storage:

Unopened original packages can be kept for 12 months in a dry condition.

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### Surface Preparation:

The substrate must be sound, clean, free of voids, gaping cracks or ridges and open pored (like fine sand paper). All loose particles and particles which can prevent adhesion must be removed from the surface. BAYCOCRET-130 and BAYCOCRET-105 repair mortar shall be used to repair irregularities if needed. Round edges

at vertical external joints. 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.

## BAYCOSEAL-UM

### Product Preparation:

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

### Method of Application:

- Application can be done by a trowel, brush, roller or appropriate compressed-air spray equipment.
- Apply material in 2 coats at least.
- Surface can be left brushed or smooth troweled, depending on type of application and protect specifications.
- Quantities are dependent on the amount of protection desired. The average consumption is 3,0-4,0 kg/m<sup>2</sup>.

#### Horizontal and vertical joints:

Seal horizontal wall-floor joints and internal vertical corners with BAYCO-JOINT-TAPE-2000. Alternative: form cove (minimum 40x40 mm) with cement mortar.

#### Static cracks greater than 1,0 mm:

Repair static cracks >1,0 mm width BAYCO-JOINT-TAPE-2000, or rout (cut) out and fill with appropriate mortar and cover with BAYCOSEAL-UM reinforced with plaster mesh.

#### Positive side waterproofing 1,5-2,5 mm:

Apply BAYCOSEAL-UM in 2 coats as specified. Apply the second (or multiple coats) as soon as the first coat has sufficiently hardened or wait until the next day.

#### Negative side waterproofing 2,5 mm:

Apply 1<sup>st</sup> coat with BAYCOSEAL-1K at 2 kg/m<sup>2</sup>. Apply 2<sup>nd</sup> coat with BAYCOSEAL-UM at 3 kg/m<sup>2</sup>.

#### Exposure of application to (at 20°C and 60% humidity):

- Rain, vertical surfaces, after approx. 3 hours.
- Rain, horizontal surfaces, minimum 6 hours.
- 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)
- Backfilling after approx. 3 days.

### Cleaning:

Clean the tools right after the application by water. Dried material can be cleaned by mechanical methods.

### Important Advices:

- Do not apply BAYCOSEAL-UM at temperatures below +5°C.
- At high temperatures, i.e. +30°C and above, protect application from direct sun and wind to prevent premature surface drying and shrinkage cracks.
- Do not pre-dampen brush or roller with water.
- 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, 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).

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- 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: 1mm. BAYCOSEAL-UM thickness warrants the same protection as 30 cm concrete.
  - 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.
  - BAYCOSEAL-UM has a limited UV stability. Long term exposure to direct sunlight may lead to decomposition of the polymer.

**Health and Safety:**

Please refer to MSDS for details.