



Technical Data Sheet

BAYCOSEAL-2K/M

Two component, cement based, polymer modified waterproofing coating



Description:

BAYCOSEAL-2K/M is a flexible elastomeric, two component polymer modified coating that waterproofs and protects concrete, masonry, brick and some natural stone substrates with crack-bridging properties.

Areas of Application:

It can be used to waterproof water structures, sewage treatment plants, exterior basement walls, retaining walls, swimming pools, fountains, aquarium & zoo tanks, spillways, wet areas, under tiled applications, exposed and decoupled roofs, sealing of expansion and construction joints with BAYCO-JOINT-TAPES.

General waterproofing:

- External waterproofing of old and new buildings against ground moisture, humidity and pressure water.
- Horizontal waterproofing beneath masonry.
- Internal waterproofing against humidity from outside.
- For waterproofing of underground car parks, prefabricated garages, containers, service water tanks, liquid manure containers, canalization, areas of humidity, balconies, terraces and swimming pools.
- For fixing BAYCO-JOINT-TAPE watertight sealing tapes.

Waterproofing beneath tiles:

- Safe and economic waterproofing beneath tiles in wet rooms, where water permeability against long term and permanent water table is demanded, i.e. in bathrooms, kitchens, shower rooms, on balconies and terraces.
- For waterproofing inside swimming pools.

NOTE: for applications where negative side hydrostatic water pressure can be anticipated use BAYCOSEAL-1K as a base coat.

Properties/Advantages:

BAYCOSEAL-2K/M is the new generation of waterproofing materials. Thanks to its superior properties, it can be used at every waterproofing application. The advantages of material are:

- High Crack bridging ability.
- Easy to use - can be brush, spray, roller or trowel applied.
- Vapor permeable
- Waterproof – resistant to 5 bar (positive side water pressure)
- Can be tiled or left uncoated.
- UV, weather and freeze-thaw resistant.
- Bonds well to damp substrates with no priming.
- Environmentally friendly.
- No VOC content.
- Potable water approval acc. to BS6920.
- Root resistance acc. to Swiss Society of Engineers & Architects: SIA V 280 no.11

Technical Data:

Basis:	2 comp. cement/sand powder and liquid polymer disp.
Mixing ratio:	5:2 powder: liquid: by weight
Color:	grey/white/blue
Fresh Mortar Density:	1,55-1,75 kg/l
Pot life:	approx. 60 minutes at +23°C, 60% RH approx. 20 minutes at +35°C, 65% RH
Substrate/application temperature:	min. approx. +5°C to max. approx. +25°C
Pedestrian traffic:	approx. 24 hours later
Service temperature:	traffic -15°C to +50°C non traffic -20°C to 60°C

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Exposure to:

- rain after approx. 6 hours
- pedestrian traffic after approx. 1 day
- pressure water after approx. 7 days
- setting of tiles after approx. 1 day

Elongation: 100% (TS EN ISO 527-2)
Crack bridging: ≥ 1 mm (TS EN 14891)
Adhesion strength: approx. 1,5 N/mm² at 28 d

Adhesion strength: $>1,0$ N/mm² (TS EN 1542)
Water permeability: nil at 5 bar (TS EN 12390-8)

Packaging:

The product is delivered in 35 kg. sets

Storage:

When stored dry and kept from freezing:
Powder component: approx. 12 months.
Liquid component: approx. 24 months.
Store the product in original unopened packaging.
Consume open packs immediately.

Surface Preparation:

The surface must be clean, sound and fine pored. It must be free from grease, dust, pocket, cracks and ridges. BAYCOSEAL-2K/M is suitable for concrete, screed, mastic asphalt, plaster gypsum board and masonry. Coarsely pored surface like gutter blocks or precast concrete block have to be grouted with cement mortar, BAYCOSEAL-1K. Prime highly absorbent surfaces like light weight concrete or gypsum boards with EMULFIX-A to improve adhesion. Use suitable method to prepare the substrate according to its condition such as brushing, vacuuming, grinding, milling, shot blasting and water jetting.

Details:

- Concave moulding, ledging corner: Form between masonry and foundation a concave moulding of 4 cm. length with cement based mortar, BAYCOCRET-105 or BAYCOCRET-130.
- Existing cracks can be sealed with BAYCOSEAL-2K/M by embedding the BAYCO-JOINT-TAPE-2000 into the first layer.

Product Preparation:

Mixing:

Pour approx. 2/3 of the liquid component into a clean container and add powder component whilst stirring until a lump free mass is achieved. Mixing time of 2-3 minutes is required. After that, add remaining liquid component and stir until a uniform consistency is achieved.

NOTE: Depending on the application, max. 1,5% (approx. 1,5 l/35 kg) water can be added in order to adjust application consistency.

Method of Application:

The substrate must be damp during the application. BAYCOSEAL-2K/M can be applied by brush, trowel, roller or appropriate spray equipment. At least two coats of BAYCOSEAL-2K/M shall be applied. The applied thickness of the waterproofing must correspond with the required minimum thickness for the expected wet duty conditions. Only apply the second coat when the first coat will not be damaged by further applications (at 20°C after 4 hours at the earliest.) Due to the possibility of crack formations avoid applied thickness greater than 2 kg/m² (=1mm. dry film thickness.) in one application to prevent formation of cracks.

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Loading case/consumption/dry layer thickness:

Positive waterproofing:

Type of application	Water head	Total recommended consumption (kg/m ²)	Min. dry thickness (mm.)**
Roofs, decoupled	Below 1 m. traffic	2,00-2,00	1,0
		2,50-3,00*	1,3
Roofs, composite waterproofing	Below 1 m. traffic	2,50-3,00	1,3
		3,00-4,00*	1,5
Balconies/terraces	non tiled	3,00-4,00	1,5
	tiled	4,00	2,0
Plaza decks		3,00-4,00*	1,5
Swimming pools	small to medium	3,00	1,5
	olympic, non tiled	3,00-4,00	1,5
	olympic, tiled normal adhesive	4,00-4,50	2,0
	olympic, tiled adhesive SOLOFLEX-T	3,00	1,5
Fountains	up to 1,00 m.	2,00-2,50	1,0
	up to 1,50 m.	3,00-3,50	1,5
Water tanks	normal water tanks	3,00-4,50	1,5
	potable water tanks	4,00-4,50	2,0
Below grade	below 2,00 m.	2,00-2,50	1,0
	below 2,00-4,00 m.	3,00	1,5
	below 4,00-7,00 m.	3,50	1,8
	below 7,00-10,00 m.	4,00	2,0
	below >10,00 m.	4,50	2,3

Negative waterproofing below grade and direct water contact:

(on BAYCOSEAL-1K substrate.)

Type of application	Water head	Total recommended consumption (kg/m ²)	Min. dry thickness (mm.)**
Below grade	below 2,00 m.	2,00-2,50	1,0
	below 2,00-4,00 m.	3,00	1,5
	below 4,00-7,00 m.	3,50	1,8
	below 7,00-10,00 m.	4,00	2,0
	below >10,00 m.	4,50	2,3

*Depends on the amount of traffic.

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**Min. thickness of cured film on any point of the coating. These are technical limits of the product and do not reflect legal requirements for any application. Please review local building codes for to conforming min. film thickness. These may be higher than the technical possible min. values stated.

Cleaning:

Wet material can be cleaned off with water. Cured material can be cleaned off with etching application.

Important Advices:

- In hot and humid climates coating may become slightly tacky/sticky during the curing process. If this occurs, mist coating with water 24 hours after application to ensure complete hydration of material.
- Negative water pressure can lead to delamination during frost conditions.
- BAYCOSEAL-2K/M can be overplastered and also be painted with diffusion permeable and solvent-free paints (no silicate paints.).
- In areas with high humidity and inadequate ventilation (i.e. water tanks) allow for extended drying times.
- Pre-dampen the surface prior to application of BAYCOSEAL-2K/M.
- Protect surfaces not be treated from BAYCOSEAL-2K/M.
- Eliminate direct contact with metals such as copper, zinc and aluminum with pore-tight, priming agent. A pore-tight primer can be produced with two applications of BAYCOFLOOR-EP1260. Apply the first coat thoroughly to the cleaned substrate and carefully brush in. As soon as this coat has dried sufficiently, so that it can no longer be brushed through (within approx. 3-6 hours) then brush on the second coat of BAYCOFLOOR-EP1260 and broadcast with quartz sand (0,2-0,7 mm). Consumption approx. 800 to 1000 gr/m² of BAYCOFLOOR-EP1260.
- To increase pot life at higher temperature store material in a cool environment above +5°C and only expose to warm temperature for a short while before mixing. Additionally, use of cold water can also increase pot life, if water addition is necessary.

Health and Safety:

- The powder component of BAYCOSEAL-2K/M is classified as "irritant" in accordance with hazardous goods.
- Low chromate level according to TRGS 613 (Technical Regulation for Hazardous Materials, European Standard).
- Please refer to MSDS for details.