

Polymer modified bituminous coating

COMBIDIC® and COMBIFLEX®

Rapid. Strong.
Smooth.

The new generation of bitumen coatings represents smooth application with results inspiring the greatest of confidence.

Problems Solved.



Correctly plan bituminous waterproofing: **Maintaining safe and effective values.**

The most important prerequisite for optimum waterproofing of basements, walls and foundations is to maintain the value of the building long term, to protect it from moisture penetration and provide a pleasant room environment.

Building components located in the ground especially require high quality and professional waterproofing solutions. Bitumen coatings play a decisive role here.

Polymer modified bituminous coatings are bitumen emulsions, which are stabilized by emulsifying agents. On contact with stone, the bitumen particles "break" with the water, which means they disengage and almost abruptly form a continuous bitumen film and the water evaporates.

The choice of an appropriate bituminous coating for basement masonry depends on different factors, to which, above all, belong the so-called exposure conditions, due to moisture pressure penetrating from the outside. Ground water pressing from the outside requires a different waterproofing application than normal ground moisture.

Bituminous coating.

Anionic

COMBIDIC®-1K

One component, polymer modified bituminous coating

COMBIDIC®-2K CLASSIC

Two component, polystyrene filled polymer modified bituminous coating

COMBIDIC®-2K PREMIUM

Reactive, two component polymer modified bituminous coating

Cationic

COMBIFLEX®-C2/P

Two component, polymer modified bituminous coating

COMBIFLEX®-EL

Two component, polymer modified bituminous coating with extra light-weight fillers

COMBIFLEX®-C2/S

Two component spray applied bitumen waterproof membrane

The four exposure conditions.

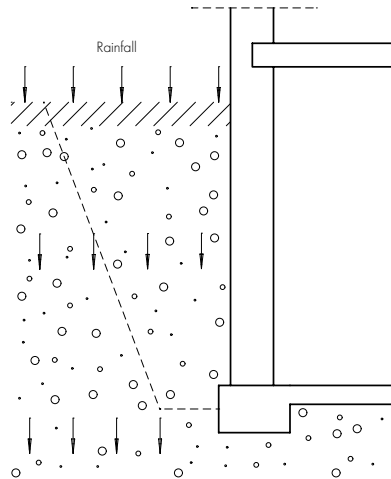
Exposure condition 1: Ground moisture

The lowest exposure condition exists if the building terrain to an adequate depth beneath the foundation slab is composed of non-binding ground material (e.g. sand or gravel), so that rainwater can permanently seep away without standing.

Ground moisture

With strongly permeable ground material

$k > 10^{-4} \text{ m/s}$
($k > 0.1 \text{ mm/s}$)



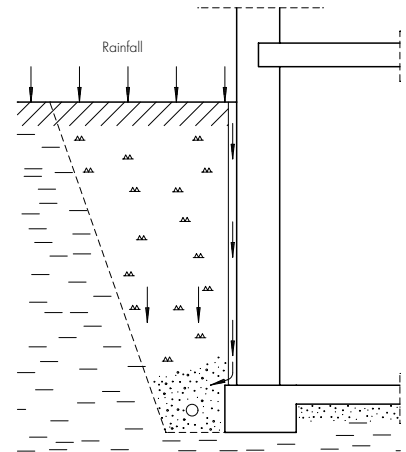
Exposure condition 2: Non-standing seepage water

In contrast to the ground moisture exposure condition, a drainage system must certainly be incorporated at the wall and floor area.

Non-standing seepage water

With poorly permeable ground material

$k \leq 10^{-4} \text{ m/s}$
($k \leq 0.1 \text{ mm/s}$)
with drainage to DIN 4095



Exposure condition 3: Standing seepage water

Occasional standing seepage water exerts hydrostatic pressure on the waterproofing membrane. With binding ground material, the water accumulates from the bottom to the top.

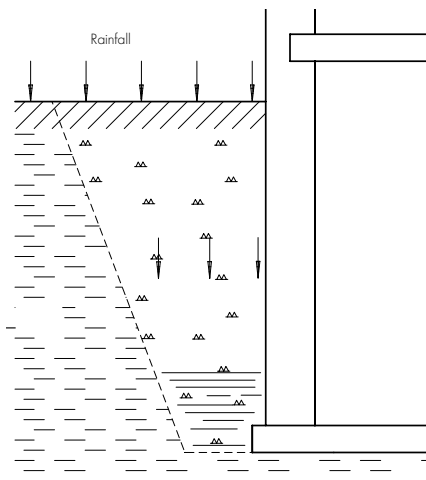
Standing seepage water

With poorly permeable ground material

$k \leq 10^{-4} \text{ m/s}$
($k \leq 0.1 \text{ mm/s}$)
without drainage

Foundation depth up to 3 m
below ground level

Flood design level (highest
expected ground water
level/high water level)



Exposure condition 4: Pressure water

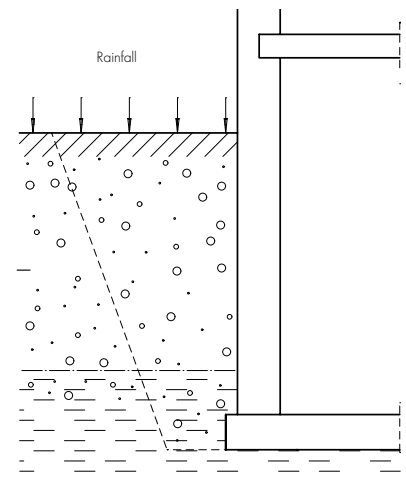
In contrast to standing seepage water, the flood design level lies less than 300 mm below the underside of the floor slab.

Pressure water (ground water)

With poorly or strongly permeable ground material

Foundation depth up to 3 m
below ground level

Flood design level (highest
expected ground water
level/high water level)





Anionic bitumen products:
SCHOMBURG makes the well proven even better.

The majority of bitumen coatings today are still produced from anionic emulsions. In an extensive series of experiments, SCHOMBURG developed products, which pursued one overriding goal: to provide you, as user, with maximum safety. This forms the basis of our long standing experience and constantly high quality.

Thanks to an improved formula, the new COMBIDIC®-2K-PREMIUM dries faster, is smoother to apply and the compression within the material after back-filling is greatly reduced.



COMBIDIC®-1K



COMBIDIC®-2K CLASSIC



COMBIDIC®-2K PREMIUM



The reliable one.

One component, polymer modified bitumen coating.

When you want to combine safety with economy.

Areas of application

Suitable for waterproofing building components in direct ground contact such as e.g. basement walls, foundations, floor slabs in accordance with the relevant exposure conditions:

- Ground moisture, non-standing seepage water and standing seepage water (pressure water)
- Suitable as an adhesive for insulation, protection and drainage boards

Properties

- Seamless and jointless, flexible, crack-bridging waterproofing
- Simple, economical application
- Solvent free

Advantages

- **High anti-sag performance**
- **Smooth to apply**
- **Apply by hand or spray equipment**
- **One component product**

The classic one.

Two component, polymer modified bitumen coating.

When you don't want to make any compromises in quality, also with a classic solution.

Areas of application

Suitable for waterproofing building components in direct ground contact such as e.g. basement walls, foundations, floor slabs in accordance with the relevant exposure conditions:

- Ground moisture, non-standing seepage water, water not under pressure/moderate exposure, standing seepage water and pressure water
(Pay particular attention to the advice section in the technical data sheet)
- Well suited as an adhesive for insulation, protection and drainage boards

Properties

- Seamless and jointless, flexible, crack-bridging waterproofing
- Polystyrene filled
- Early rainproof
- Solvent free

Advantages

- **High anti-sag performance**
- **Smooth to apply**
- **Apply by hand or spray equipment**
- **Two component product**

The champion.

Reactive, two component, polymer modified bitumen coating.

When you want to combine the highest quality with extremely rapid through drying rates.

Areas of application

Suitable for waterproofing building components in direct ground contact such as e.g. basement walls, foundations, floor slabs in accordance with the relevant exposure conditions:

- Ground moisture, non-standing seepage water, water not under pressure/moderate exposure, standing seepage water and pressure water
(Pay particular attention to the advice section in the technical data sheet)
- Very well suited as an adhesive for insulation, protection and drainage boards

Properties

- Seamless and jointless, flexible, crack-bridging waterproofing
- Reactive fillers
- Rapidly rainproof
- Rapid drying rate
- Solvent free

Advantages

- **Rapid through drying rate, approx. 24 hours**
- **Rapidly rainproof**
- **High resistance to pressure**
- **Apply by hand or spray equipment**



Cationic bitumen products:
**Simple and assured application
without a primer.**

The three products COMBIFLEX®-C2/P, COMBIFLEX®-EL and COMBIFLEX®-C2/S are based on cationic bitumen emulsions. On breaking the emulsion, the cationic bitumen releases its active water. This leads to an even faster and secure rainproof performance. The bitumen cross-links with the substrate through chemical reaction and provides an optimum bond. Therefore the mixed two component coatings can be applied without primer. This means: you save a work step and therefore save valuable time.

SCHOMBURG also continuously further develops cationic bitumen emulsions. COMBIFLEX®-C2/S enjoys an improved formula, which is suitable for efficient spray application.



COMBIFLEX®-C2/P

The active one.

Two component, polymer modified bitumen coating

Areas of application

Suitable for waterproofing building components in direct ground contact such as e.g. basement walls, foundations, floor slabs in accordance with the exposure conditions:

- Ground moisture, non-standing seepage water, non water pressure, standing seepage water and pressure water
- Suitable for waterproofing strip form, externally positioned joints

Properties

- Seamless, jointless, flexible crack-bridging waterproofing
- Rainproof after a short period of time
- Cross-links through chemical reaction
- Simple and economical application
- Radon barrier
- Can also be used on matt damp substrates without priming

Advantages

- **No priming coat necessary**
- **Rainproof < 4 hours**
- **Can also be used on matt damp substrates**

COMBIFLEX®-EL

The light one.

Two component, polymer modified bitumen coating

Areas of application

For waterproofing building components in direct ground contact such as e.g. basement walls, foundations, floor slabs in accordance with the exposure conditions:

- Ground moisture, non-standing seepage water, non water pressure, standing seepage water and pressure water
- Suitable for waterproofing strip form, externally positioned joints

Properties

- Seamless, jointless, flexible crack-bridging waterproofing membrane
- Low consumption per unit area
- Simple, economical application
- Rainfast after a short period of time
- Cross-links through chemical reaction
- Can be used without a primer
- Radon barrier

Advantages

- **Best application properties**
- **Lower consumption per unit area**
- **No primer necessary**
- **Rapidly rainproof**
- **Also for use on matt damp substrates**

COMBIFLEX®-C2/S

UPDATE

The economical wonder.

2 component spray applied bitumen waterproofing

Areas of application

For waterproofing building components in direct ground contact such as e.g. basement walls, foundations, floor slabs in accordance with the exposure conditions:

- Ground moisture, non-standing seepage water, non water pressure, standing seepage water and pressure water

Properties

- Seamless, jointless, flexible crack-bridging waterproofing membrane
- Simple and economical application without priming
- Rainfast after a short period of time
- Cross-links through chemical reaction
- Radon barrier

Advantages

- **Optimized for mechanical application**
- **No primer necessary**
- **Rapidly rainproof**
- **Also for use on matt damp substrates**

The SCHOMBURG Group develops, produces and markets high quality building product systems for

- Construction waterproofing
- Construction restoration
- Tiles/natural stone installation
- Screed installation
- Civil engineering
- Surface protection
- Concrete technology

SCHOMBURG is recognised for its development competency and is distinguished both nationally and internationally with over 80 years in the market. System based construction products from its own production plants are held in high esteem throughout the world.

Industry professionals value the level of service provided by the SCHOMBURG Group, along with our large range of high quality products.

In order to stay at the forefront of a continuously advancing market we are always investing in research and development of new and current products. This guarantees high quality products, which in turn leads to customer satisfaction.

SCHOMBURG GmbH & Co. KG
Aquafinstraße 2 - 8
D-32760 Detmold (Germany)
phone +49-5231-953-00
fax +49-5231-953-108
email export@schomburg.de
www.schomburg.com

