

# EUCOPROOF MB PRE

## PRE-APPLIED, SPECIALLY COATED, FLEXIBLE WATERPROOFING MEMBRANE

### FIELD OF APPLICATION

EUCOPROOF MB PRE is a unique, 3-layer, very flexible tanking membrane. The membrane is applied before the concrete is poured, cold, without heat or open flame. It can be welded if required. It consists of a synthetic membrane coated with a very special alkali-resistant pressure-sensitive adhesive and is treated with silicon dioxide. This special design offers very high safety against water penetration. Its flexible adhesion onto concrete makes it a permanent waterproofing membrane. These membranes are used to waterproof basement walls, foundations, tunnels, floor slabs, etc. and are suitable for both vertical and horizontal surfaces. It can be used against water under pressure and against radon gas infiltration.

It has a very high adhesion to concrete due to the enlargement of the surface structure with silicon dioxide. The membrane is provided on one side with a self-adhesive strip for lateral overlap and ensures perfect adhesion between the different membrane rolls. The application is performed prior to the placement of the reinforcing steel and the pouring of the concrete.

### BENEFITS & FEATURES

- Flexible adhesion to concrete.
- Highly flexible
- Trafficable
- Pressure-sensitive adhesive
- Continuous thickness
- Waterproof against water under pressure
- Chemically resistant
- Methane gas barrier
- Radon gas barrier
- UV resistant for >60 days
- Strong crack bridging
- High elongation
- Not harmful to ground water

### APPLICATION

#### Application conditions

The recommended application temperature is between +5°C and +40°C. Depending on the weather conditions EUCOPROOF MB PRE is trafficable approx. 1 month after the application.

#### Tools & complementary products

- EUCOPROOF MB TAPE HDPE
- EUCOPROOF MB TAPE DS
- EUCOPROOF MB TAPE R
- Sharp knife
- Scissors
- Pressure roller large: 5 to 10 cm
- Pressure roller small: 2- 3 cm
- Aluminium rod - to cut the rolls precisely

### Preparations

The substrate must be solid, even, stable and clean. The surface to be coated must not have any damages, cracks, joints or cavities larger than 10 mm. In order to prevent movement of pipe and cable ducts during installation, they must be fixed in place. Damaged concrete shall first be renovated with EUCOPROOF MORTAR THIX or other EUCOCHEM repair mortars. Sharp edges should be removed.

### Application of the product

#### Horizontal application:

EUCOPROOF MB PRE shall be applied with the silicon dioxide coating towards the "concrete to be poured side". The white layer towards the substrate.

#### Longitudinal overlap:

The overlap between the membranes is 75 mm. Before removing the siliconised PE foil (from the side overlap area), ensure that the overlap area of the membranes is correctly positioned. Make sure the back side of each subsequent roll is clean before attaching and overlapping it. Then start to apply the siliconised PE foil to adhere the membranes together. Use a pressure roller on the overlap area to ensure complete perfect adhesion between the membranes. Then proceed with the removal of the plastic foil and press the membranes further together.

#### Connect end of roll with beginning of new roll:

Under the end of an inserted roll the EUCOPROOF MB TAPE HDPE is applied with the siliconised PE foil facing upwards. Half of the tape should be placed 75 mm (the roll width of the HDPE tape is 150 mm) under the first membrane. Then remove the first section of siliconised PE foil from under the EUCOPROOF MB PRE membrane and press firmly. Make sure the back side of each subsequent roll is clean before attaching and overlapping it. Then carefully place the next membrane over the second half of the HDPE tape. Remove the second part of the siliconised foil from under the new piece of membrane and press everything together well. This creates a flat transition between the ends of two rolls of membrane.

#### Vertical application:

EUCOPROOF MB PRE must be mechanically fastened to the substrate using fastener tools. These should have a flat profile head so that the membrane is not damaged by the fixings. The fixings are always perfectly centred in the overlap zone. Or, the membrane is only temporarily fixed at the top with sufficient strength until after the concrete has been poured.

Please note that the overlap between membranes in vertical applications is 80 mm. The application method for overlaps in vertical applications (both on the longitudinal direction and the connections between the end of a roll and the beginning of a new roll) is the same as for a horizontal application as described above.

All details, e.g. Around pipes, shall be made extra watertight with EUCOPROOF MS T, a liquid applied elastic membrane. For better adhesion to HDPE, a pretreatment with EUCOPROOF MB TAPE R is recommended.

#### Repairs before pouring the concrete:

In case of damage to EUCOPROOF MB PRE (e.g. during formwork installation, placement of reinforcing steel, etc) it is absolutely necessary to repair

it before the concrete is poured. EUCOPROOF MB TAPE R can be used to repair cuts, cracks, holes <10 mm, ...

For larger repairs, cut a sufficiently large area from a new roll of EUCOPROOF MB PRE to fit over the area to be repaired. Make sure that the area overlaps at least 150 mm of the damaged area. The repair surface shall then be glued over the damaged area with EUCOPROOF MB TAPE DS in accordance with the recommended cutting edge details.

### Finishing

#### Pouring the concrete:

The concrete shall be poured within 30 days after installation of EUCOPROOF MB PRE.

Before pouring the concrete, check the entire surface again for damage, also check all overlap and connection areas for proper workmanship and ensure that all siliconised PE foil has been removed in that area.

Do not damage the membrane while pouring the concrete.

#### Removing the formwork:

It is very important to remove the formwork only when the concrete has sufficient compressive strength to develop the required bond with EUCOPROOF MB PRE. Premature removal of all formwork can lead to displacement of the membrane and/or concrete damage. For formwork removal a minimum concrete compressive strength of 10 N/mm<sup>2</sup> is recommended.

### Cleaning of the tools

Does not apply.

### MAINTENANCE AFTER APPLICATION

Does not apply.

### TECHNICAL DATA

#### Consumption

Take into account an overlap of 75 mm in horizontal applications and an overlap of 80 mm in vertical applications.

#### Technical data & reaction times

Membrane:

1st layer: Base layer - flexible synthetic membrane.

2nd layer: Pressure sensitive polymer resin

3rd layer: Mineral based silicon dioxide Colour: White

Weight Approx. 1.6 kg/m<sup>2</sup>

Thickness: Approx. 1.3 mm

Roll length: 20 m

Roll width: 1050 mm

Property	Value	Harmonised technical specifications
Visual defects	Passed	EN 1850-2
Dimensions and deviations	Length: 20 m +/- 0.10 m Width: 1050 mm +/- 5mm Flatness: Passed	EN 1848-2
Thickness and zone density	Thickness membrane with coating 1.34 mm (+10/-5%) Zone density: 1550 g/m <sup>2</sup> +/- 10%	EN 1849-2
Watertightness: Water pressure 60 kPa (0.6 bar)	Passed	EN 1928-A
Watertightness: Water pressure 400 kPa (4 bar)	Passed	EN 1928-B
Impact resistance Substrate Al-board	400 mm	EN 12691-A
Impact resistance Substrate EPS-board	800 mm	EN 12691-B
Durability - against ageing due to heat	Passed	EN 1296 & EN 1928-A
Durability - against chemical substances	Passed	EN 1847 & EN 1928-A

Compatible with bitumen	Passed	EN 1548 & EN 1928-A
Tear resistance - longitudinal (nail shank)	>500N	EN 12310-1
Tear resistance - transversal (nail shank)	>650N	EN 12310-1
Resistance static load Substrate EPS board	≤ 15 kg	EN 12730-A
Resistance static load Substrate concrete	≤ 20 kg	EN 12730-B
Resistance static load Substrate EPS board	≤ 15 kg	EN 12730-C
Tensile strength - longitudinal	≥ 120N / 6 mm	EN 12311-2
Tensile strength - transversal	≥ 140N / 6 mm	EN 12311-2
Tensile strength - longitudinal	≥ 13N / 6 mm	EN 12311-2
Tensile strength - transversal	≥ 14N / 6 mm	EN 12311-2
Elongation at break - transversal	≥ 650%	EN 12311-2:2013
Elongation at break - longitudinal	≥ 650%	EN 12311-2:2013
Reaction to fire	Class E	EN 13501-1

Peel strength of poured concrete (N/mm<sup>2</sup>)

Clean surface: ≥ 2.2

Surface contaminated with cement powder: ≥ 2 UV-ageing (3 months): ≥ 2

Peel strength of the connection with cast concrete (after immersion in water)(N/mm): ≥ 2

All data are laboratory values.

### Chemical resistances

Good chemical resistance. When used in applications with chemically contaminated water, please contact EUCCHEM BV.

### Additional documentation & referrals

Always consult all technical data sheets of the products to be used. Always work with clean tools in good condition.

### APPEARANCE - COMPOSITION - PACKAGING

EUCOPROOF MB PRE is available on a roll:

Length: 20 m

Width 1050 mm

Storage takes place in a dry room between +5°C and +40°C; the product had an unlimited shelf life if stored in the unopened packaging under the conditions described above.

### ADDITIONAL COMMENTS

For special applications it is advisable to consult your EUCCHEM.

### SAFETY PRECAUTIONS

Always use personal protection in accordance with the local guidelines. Consult the appropriate safety sheets before use. All most recent safety data sheets are always available at [www.eucochem.com](http://www.eucochem.com). When in doubt, contact our technical service.

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