

EUCOPROOF MB REACTIVE

CRYSTAL ACTIVE, PRE-APPLIED, SPECIALLY COATED FLEXIBLE WATERPROOFING MEMBRANE

FIELD OF APPLICATION

EUCOPROOF MB REACTIVE is an absolutely new and 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 with a crystal forming granule. This special design offers very high safety against water penetration. The crystal forming properties in the concrete make it a permanently active 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

- Extra waterproofing properties due to crystal formation in the concrete
- Permanently active
- 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 REACTIVE 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 REACTIVE 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 EUCO-PROOF 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 EUCO-PROOF 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/mm² 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, crystal forming granule.

Colour White

Weight Approx. 1.6 kg/m²

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 ² +/- 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/mm²)

Clean surface: ≥ 2.6

Surface contaminated with cement powder: ≥ 2.4

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 polluted water, please contact EUCOCHEM 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 REACTIVE 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 have 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 EUCOCHEM.

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. When in doubt, contact our technical service.

All information in this technical data sheet is provided in good faith and without any guarantees. The choice of a product for any application by the buyer or applicator, the processing of the products, the preparations, the finishing, the use of the right equipment to apply the products and all this in the broadest sense, are entirely beyond our control and are therefore entirely the responsibility of the buyer or applicator. Therefore, EUCOCHEM bv cannot be held responsible on the basis of what is mentioned above. Should EUCOCHEM bv nevertheless be held responsible for damage incurred, the claim will always be limited to the value of the necessary EUCOCHEM bv products to be delivered in order to carry out a minimal repair. EUCOCHEM bv strives to deliver products of consistent, good quality. All values on the technical data sheet are average values and are the result of tests performed under laboratory conditions. Values that are measured in jobsite conditions and the like may deviate from the stated values. This is because the environmental conditions, the application and the manner of processing our products are also outside our control. Please note that you should not add any products other than those indicated in our technical documentation. Only use EUCOCHEM bv products for a system under construction. If you combine products from different suppliers or brands, the warranty expires irrevocably. When applying the EUCOCHEM bv products it is necessary to draw up a construction site log and to fill it in on a regular basis. EUCOCHEM bv can consult the construction site log at any time and / or request a copy to check whether the products and systems have been correctly installed or installed in accordance with