

MC-Plan 216 M

Watertight and crack-bridging TPO (FPO) membrane system-pre-apply and fully bond to structure concrete.

- PRODUCT DESCRIPTION:**
- A simple and quick to apply waterproofing system that chemical adheres to fresh concrete. The sheet membrane is used in combination with fresh concrete on the side with the structural waterproofing layer and the other side in contact with the substrate floor or wall surface to prevent ingress of moisture (capillary action or retained water) or seepage from water under pressure.

- PRODUCT PROPERTIES:**
- Highly flexible insulation system against pressurised water.
 - Simple and economical to install – No primer and protection requirement.
 - Permanently bonded to the hardened concrete by pressure-sensitive adhesive.
 - Resistant to mechanical stress.
 - Fully-adhered watertight laps and detailing.
 - Maximum safety thanks to prefabricated system components.
 - Can be integrated into Nafuflex and Expert Proof insulation systems.
 - Inert product – no risk of reaction with ponded waste prior to concrete being poured.
 - Can be trafficked immediately after application and ready for immediate placing of reinforcement.

- AREAS OF APPLICATION:**
- Basement waterproofing protection to grades 1,2 and 3 as defined in BS8102:2009 Insulation of floor slabs.
 - To provide a vapour and waterproof membrane in building and civil engineering structures
 - One or two-sided form worked concrete structural elements with insulation.
 - Waterproofing that can be used in combination with waterproof (WU) concrete structures.

- APPLICATION NOTES:**
- **Substrate preparation:** All Surfaces — It is essential to create a sound and solid substrate to eliminate movement during the concrete pour. Substrates must be regular and smooth with no gaps or voids greater than 12mm. Grout around all penetrations such as utility conduits, etc. for stability. Water that may have accumulated in the working pit due to rainfall or other causes must be pumped out.
 - **Membrane installation:**
 - When installing the waterproofing membrane, care should be taken to ensure that the FPO (flexible polyolefin) side faces outwards, towards the water trying to penetrate, and the glue side faces inwards, towards the concrete.
 - The system consists of the following elements: **MC-Plan 216 M** (Membrane sheet), MC-Plan 216 RT (repair tape), MC-Plan 216 CT (Connection tape), MC-Plan 216 PT (penetration/butyl tape), MC-Plan 216 IC (internal corners), MC-Plan 216 EC (external corners).
 - **MC-Plan 216 M** insulation should always be installed on the outside of the building in such a way that, to loosely place the plates on the receiving surface.

- The panels can be joined together by adhesive overlapping on the side edges using self-adhesive strips. For floor-wall connections, the use of MC-Plan 216 IC/EC corner elements and MC-Plan 216 CT jointing tape is recommended.
 - Alternatively, the corners can be made on site from pieces cut from MC-Plan 216 CT joint tape, according to the manufacturer's instructions. The joining of head joints or transverse seams and, if necessary, cut-to-size elements can be carried out using the 20 cm wide MC-Plan 216 CT tape is used with the seam running down the middle of the tape.
 - Care should be taken to ensure that the glue lined parts are as close together as possible when fitting. The maximum permissible distance is 5 mm and overlapping should be avoided. Make sure that the seams are slid in a T-shape, so that they do not cross each other.
- **Important information: MC-Plan 216 M** can be used on construction joints and pre-designed crack joints, for dilatation joints it is recommended to combine it with the **MC-Plan 216 M** range of joint sealing tapes. Detailed design information and additional technical parameters can be found in the MC-Waterstop product design guide.

TECHNICAL DATA:

| Characteristic | Unit | Value | Comments |
|------------------------------------|--------|------------|---------------------------|
| Color | | Grey | |
| Thickness (sealing layer) | mm | 0.9 | +/- 0.1 mm tolerance |
| Total thickness (with glue) | mm | 1.2 | +/- 0.1 mm tolerance |
| Processing temperature | °C | +5 to +35 | Plate temperature |
| Heat resistance | °C | -30 to +60 | |
| Water migration test | Bar | 7.0 | According to ASTM D 5385 |
| Breaking load-longitudinal | N/50mm | > 600 | Din EN 12311-2 (method B) |
| Breaking load-lateral | N/50mm | > 500 | Din EN 12311-2 (method B) |
| Extension break-longitudinal | % | > 700 | Din EN 12311-2 (method B) |
| Extension break-lateral | % | > 600 | Din EN 12311-2 (method B) |
| Resistance to tearing (nail shank) | N | > 500 | Din EN 12691 |
| Shear resistance of joint seams | N/50mm | > 200 | Din EN 123730 |

Safety instructions

Please note the safety information and advice given on the packaging labels and safety data sheets.

PRODUCT CHARACTERISTICS:

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|----------------------------|---|----------------------------------|
| Transport packaging | MC-Plan 216 M (waterproofing sheet) | 20 m ² roll |
| | MC-Plan 216 RT (repair tape) | 20 m roll |
| | MC-Plan 216 CT (Connection tape) | 20 m roll |
| | MC-Plan 216 PT (penetration/butyl tape) | 100 m roll |
| | MC-Plan 216 IC (internal corners) | 25 internal corner elements/pack |
| | MC-Plan 216 EC (external corners) | 25 external corner elements/pack |
| | Storage | Keep in a cool, dry place |

Note: The information provided here is based on our experience and correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual building projects, to the specific application and to non-standard local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. Given these preconditions we shall be liable for the accuracy of the information given as outlined in our sales and delivery terms and conditions. Recommendations by our employees that deviate from this information are only binding for us if they have been confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be adhered.

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