



# MAXDRAIN<sup>®</sup> -P8 GW



## DRAINAGE MEMBRANE WITH GEO-TEXTILE FILTER FABRIC FOR THE PROTECTION OF FOUNDATIONS, WALLS AND SLABS

### DESCRIPTION

**MAXDRAIN<sup>®</sup> -P8 GW** is a high-density polyethylene (HDPE) membrane formed in a shape of truncated cones, covered, and fastened on one side with a non-woven polypropylene filter fabric. Drainage system has a high compression resistance and high draining capacity and provides a drained cavity to floors and walls of underground structures. Its specially designed cones collect water and channel it away from the surface towards an appropriate drainage system.

### APPLICATION FIELDS

- Protection and drainage of foundations and retaining walls.
- Drainage system for podiums, plaza decks, courtyards, basement roofs or green roofs, landscaped inverted roofs and elevated concrete decks with planted areas.
- Protection of waterproof coating in foundations.
- Drainage and protection of galleries and tunnels.
- Ventilation of retaining and interior walls.
- Protective layer of lean concrete of slabs and other horizontal concrete surfaces in floor slabs, preventing the rising dampness because of a direct contact with saturated grounds.

### ADVANTAGES

- High drainage capacity.
- Easily installed system.
- Excellent chemical resistance: alkalis, acids, solvents, and all common groundwater salts.
- High compression resistance.
- Relieves hydrostatic pressure on underground structures and extends the life of the waterproof coating.
- Resistant to roots.
- Does not rot.
- Appropriate for contact with drinking water.
- Compatible with cement-based materials and other common building materials.
- Provide some degree of thermal insulation.

### APPLICATION INSTRUCTIONS

#### Preparation of the surface

Surface to be protected with the drainage membrane must be sound, relatively smooth, and free of any material which affect to the placement of the membrane. Where surface irregularities exceed 5 mm, cut back, and make good. Waterproofing of surface with any suitable material such as **MAXSEAL<sup>®</sup> FOUNDATION** (Technical Bulletin No. 8) for foundations and **MAXELASTIC<sup>®</sup> PUR** (Technical Bulletin No. 172) or **MAXSEAL<sup>®</sup> FLEX** (Technical Bulletin No. 29) for green roofs is highly recommended.

The geo-textile filter fabric is bonded to the truncated cones with glue which permits the fabric to be peeled back to form overlaps.

## Installation

The geo-textile filter fabric is always laid towards the water face to allow the water entry, drain away from the back-fill and down the drain path away from the structure.

Membrane is fixed mechanically to the substrate using an anchorage washer which fills the truncated cone, and the steel nail is introduced (use at least 2 fixing washers per m<sup>2</sup>). Avoid crushing the cones when membrane is fixed to the substrate.

For horizontal surfaces or floor slabs, loose lay **MAXDRAIN® -P8 GW** with brown side to the floor and cut around any obstruction. Seal around columns, penetrations, and other elements with any suitable mastic tape. Form end and side laps by interlocking the cones at least 20 cm and sealing with adhesive tape. Complete the attachment by pulling the excess filter fabric over the previously installed membrane. The roof/podium slabs should have adequate slopes so that the collected water is carried towards the drainages and channels.

For walls, foundations and other vertical elements or applications, **MAXDRAIN® -P8 GW** drainage membrane installation is carried out by unrolling in a continuous vertical strip (wallpaper style) on the walls and placing the brown side against the surface to be protected and geo-textile filter fabric faced to ground, providing a chamber through wherein both air and water vapour will circulate. In order to avoid the entrance of the backfilling material into the chamber, the top sealing of the drainage membrane is carried out using a polyethylene profile. In internal/external corners and other small areas, avoid the presence of dead volumes by blending the membrane in a suitable way. If horizontal laps are unavoidable ensure the upper sheet is overlapped by the lower sheet, to ensure the water is retained with the cavity.

For applications wherein a drainage tube placed along the foundations or retaining walls is required, install **MAXDRAIN® -P8 GW** any put a layer of gravels or any other draining material directly on the membrane and then, place the tube.

## IMPORTANT INDICATIONS

- Ensure any HPDE membrane area is covered with geo-textile fabric.
- Damaged areas can be repaired by cutting an over-sized patch of **MAXDRAIN® -P8 GW** and fixing with adhesive tape.
- Back-fill should be placed as soon as possible after membrane installation.
- **MAXDRAIN® -P8 GW** must be linked with the site drainage system.
- For further information and other uses not specified in this Technical Bulletin consult our Technical Department.

## PACKAGING

**MAXDRAIN® -P8 GW** is a bicolour drainage membrane provided with a geo-textile filter fabric and it is supplied on pallet with 6 rolls of 2,1 m x 15,0 m (31,5 m<sup>2</sup>/roll).

Other accessories for the system can be also supplied:

- Bags of 20 fixing washers with concrete nails.
- Fixing nails: box of 400 units.
- Polyethylene profiles for top seal: Battens 2,5 m.

## STORAGE

**MAXDRAIN® -P8 GW** has an indefinitely shelf life when stored in its original unopened pallets in a dry and covered place, with temperatures between 5°C and 30°C. Protect against direct sunlight, heat, and frost.

# MAXDRAIN® -P8 GW



## SAFETY AND HEALTH

For further information, Safety Data Sheet of MAXDRAIN® -P8 GW is available by request.

Disposal of the product and its empty packaging must be made by the final user and according to official regulations.

## TECHNICAL DATA

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|---|--|
| <i>CE marking. EN 13967</i><br>Description: High density polyethylene (HDPE) sheet, type V with 120 g/m <sup>2</sup> heat-welded continuous filament geo-textile (70% polypropylene & 30% polyethylene)<br>Intended use: Damp proofing sheet for watertightness of buried structures. |  |
| <b>Characteristics of the product</b>   |  |
| Description<br>Membrane<br>Heat-welded geo-textile fabric   | HDPE<br>70% polypropylene & 30% polyethylene |
| Colour<br>Membrane<br>Geo-textile fabric  | Brown<br>White                               |
| Thickness, (mm)   | 0,8  |
| Weight, (g/m <sup>2</sup> )   | 700  |
| Weight for geo-textile, (g/m <sup>2</sup> )   | 120  |
| Number of cones, (unit/m <sup>2</sup> )   | 1.600  |
| Height of cones, (mm)   | 8  |
| Mean size for geo-textile fabric porous, (mm)   | 0,11   |
| Transmissibility for geo-textile fabric, (s)  | 4,5  |
| Permeability for geo-textile fabric (l/m <sup>2</sup> /s)   | 100  |
| Elongation at break point for geo-textile fabric, (%)   | > 50   |
| Water absorption, DIN 53595 (mg/4d)   | 1,0  |
| Drainage capacity, (l/s·m)  | 5,0  |
| Compression strength, (kN/m <sup>2</sup> )  | 250  |
| Puncture strength, (N)  | 1.500  |
| Tensile strength, (N/60 mm)   | 600  |
| Stability thermal range, (°C)   | From -30 to +80                              |

## GUARANTEE

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