

Product Data Sheet

DRAIN 400

DRAIN

Product Definition

DRAIN 400 is a waterproofing protection and ground water drainage sheet made of HDPE high density polyethylene with semi-conical dimples characterised by high flexibility and tensile strength resistant to roots and chemical agents.

Composition: HDPE (high density polyethylene)

Technical Data

Color	Black
Dimple density	>2000 u/m ²
Dimple height	8 mm
Weight	400 gr/m ² (±5%)
Thickness	Min. 0,30 mm
Resistance to water penetration	W1 (water resistant)
Elongation	MD≥20% CMD ≥25%
Tensile strength	MD≥100 N/50 mm CMD ≥150 N/50 mm
Compressive strength	~150 kN/m ²
Temperature range	Between -30°C - +80°C

Other Properties:

Impervious to root penetration and rot proof. Drinking water neutral. Resistant to chemicals, fungal and bacterial infestation.

Accessories:

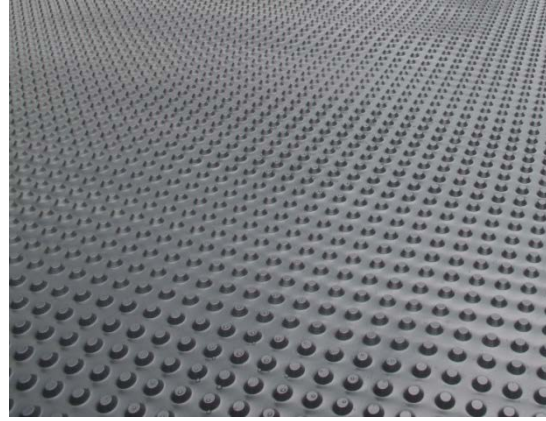
Fixing batten and self-adhesive galvanized fasteners

Packaging:

Roll length	: 20,00 m (±1%)
Roll width	: 2,00 m (±1%)
Roll coverage	: 40,00 m ² (±2%)
Nr of rolls/pallet	: 20 pieces
Pallet quantity	: 800,00 m ²

Storage – Expiry Date

The rolls are to be stored in an upright position, preferably indoors in a dry and ventilated area, away from heat sources and avoiding to stack them one on top of the other to avoid possible deformations which may compromise the application. When storing with original packaging, pallets should not be stacked.



Where to use and Properties

- Protects below grade foundation walls against infiltration of water on vertical or horizontal surfaces and channels water quickly for improved drainage towards the exterior of the structure.
- Breaks capillaries and directs water outside the structure.
- Can be used as a structurally independent layer for concrete slab replacement.
- Protects vertical surfaces like concrete shear walls and water insulation layers against backfill.
- Can be used as an infiltration layer in double shell applications of deep foundations. Evacuate runoff to drainage channels in tunnel applications.
- Quick and low cost application compared to concrete slab which requires additional digging, building and drying time.
- The dimples in the membrane create a drainage space that allows the wall to breathe.
- Dimple pattern created by more than 2000 dimples per m² provides high compressive backfill.
- Compared to time consuming brick or other masonry veneer walls, our HDPE membrane is easy to install and can be backfilled right away making it very cost effective.

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General Application Steps DRAIN 400

1. Unroll DRAIN 400, working from left to right, dimples facing the wall in vertical applications and dimples facing down onto the floor in horizontal applications.
2. Install membrane to finished grade height using flashing strips, battens or concrete nails and approved washers or plugs.
Extend drainage membrane beyond existing footing and wrap around the base of the foundation wall. Water flows behind drainage membrane to drainage pipe. Drainage pipe at the perimeter of the foundation wall should be surrounded by a free draining granular material that is wrapped in filter fabric to prevent fines from filling in the porous spaces of the granular material. It must be connected carefully to the evacuation network.
3. Vertical joints require the installation of the membrane with minimum 20 cm overlap. Overlapping joints can be fully or partially torch-bonded or sealed by using a bitumen sealing tape at the edges of the sheets and across the joints.
4. Horizontal joints require the installation of the membrane along the length of the joints with overlap of 30 cm. Overlapping joints can be partially torch-bonded or sealed by using a bitumen sealing tape at the edges of the sheets and across the joints. Where a fluctuating water table is encountered the drainage membrane must be fully bonded.
4. DRAIN 400 should be tacked up before backfill. It is recommended to use our galvanized steel fasteners with a self-adhesive backside, allowing it to be fastened to a waterproofed wall surface without penetrating the waterproof membrane. Place fasteners every 50 cm. When there is no water leakage risk, the drainage membrane can be installed with concrete nails and approved washers or plugs..
6. Alternatively, (EPS) or (XPS) or rigid mineral wool could be used as insulation in below grade application; drain mat is installed on the insulation with self-adhesive galvanized steel fasteners (i.e., used as a drainage medium and capillary break between the insulation and the backfill).

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DRAIN 400 Warning – Health and Safety

1. Avoid application in temperatures below +5°C and above +30°C.