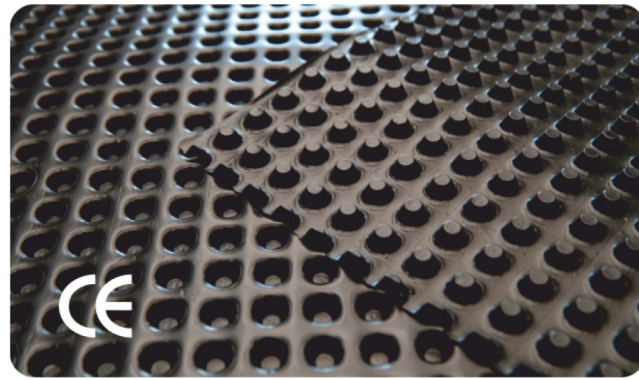


HDPE DIMPLED SHEETS

4



GEOCOMPOSITE DRAINAGE MEMBRANES

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GREEN ROOF DRAINAGE BOARD

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GREEN ROOF COMPONENTS

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ACCESSORIES

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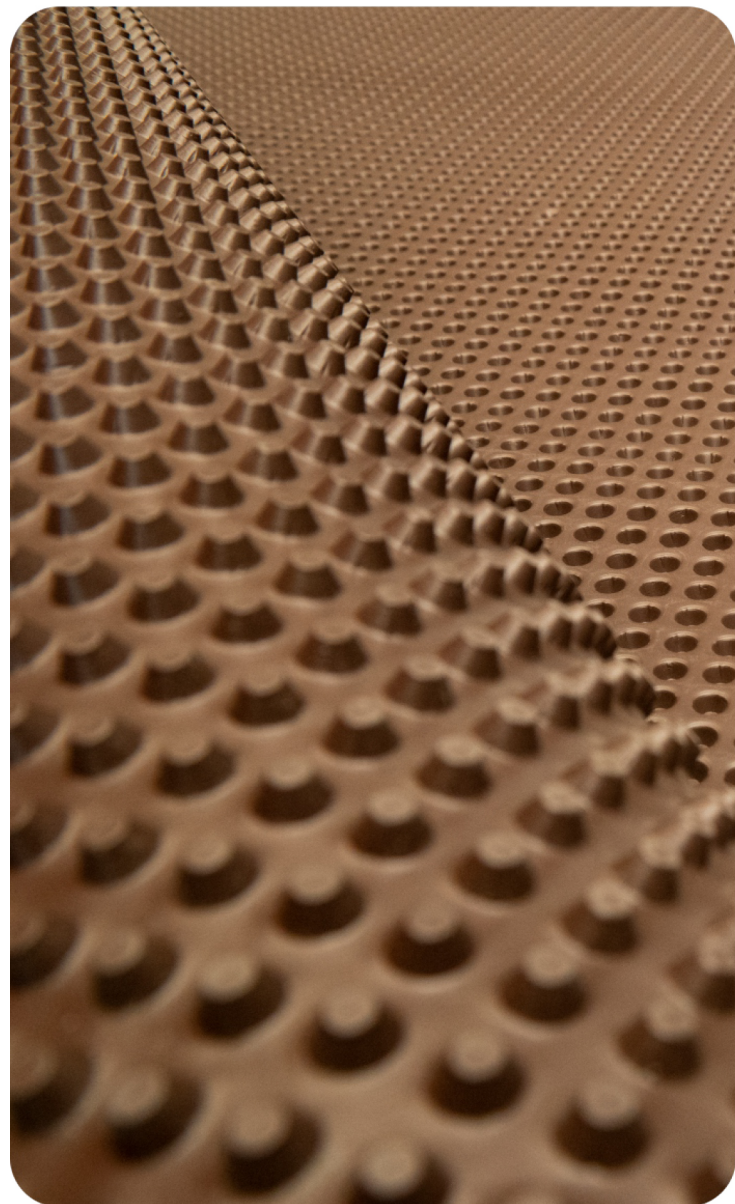
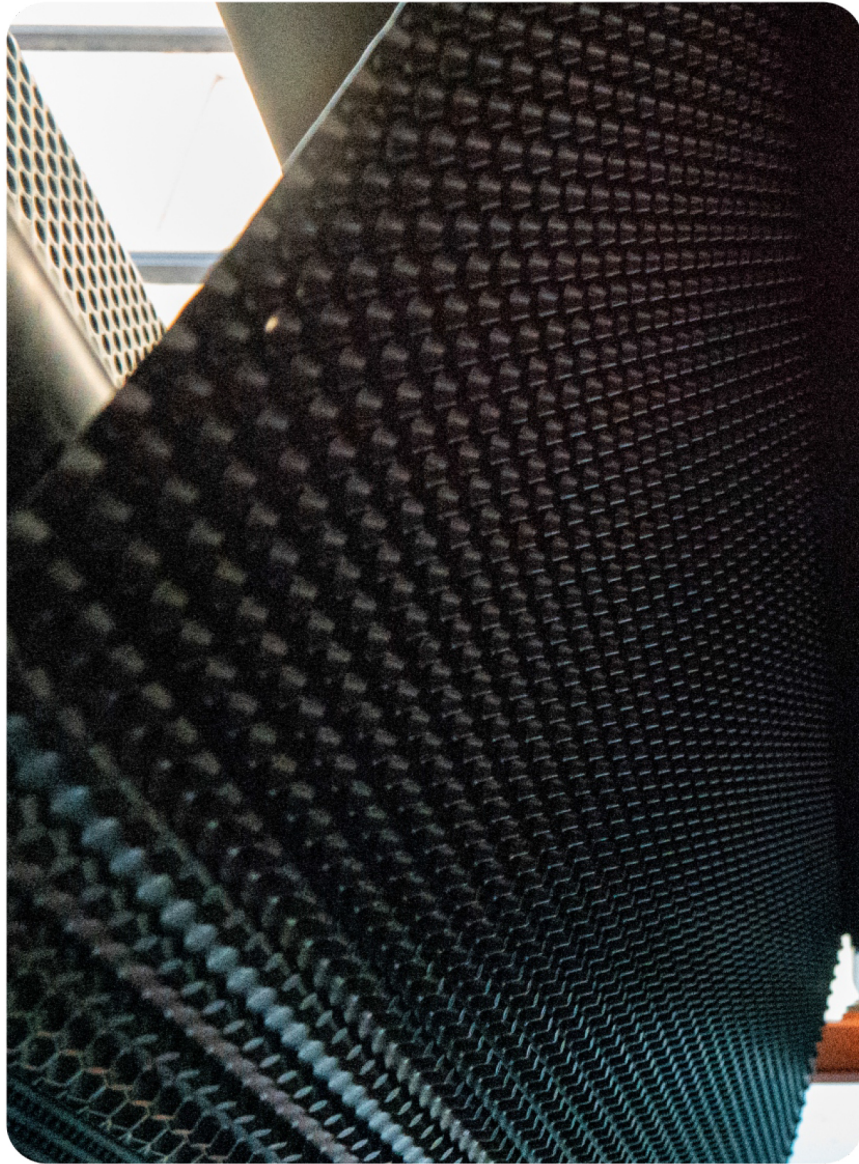
GENERAL DESCRIPTION

Serves as a protection layer throughout backfill work and prevents below-grade water from penetrating the structure. Made of recycled high-density polyethylene (HDPE), which is tremendously resistant to all chemicals, plant roots, acid, alkali, oil as well as solvents in the ground.

Allows for vertical and horizontal installations.

Mainly used for the following applications:

underground structures, basement and retaining walls, tunnels, underground car parks.



KEY FEATURES & BENEFITS

- * Provides drainage and protection for compression-resistant areas.
- * Keeps incoming water off the waterproofing material and allows it to freely drain to the drainage pipe.
- * Minimizes the risk of damage to the waterproofing layer underneath the membrane when backfilling.
- * Dimples between the basement wall and the membrane form an air gap which keeps the structure dry and moisture-free.
- * Low-cost alternative to the sub-foundation lean concrete including the following advantages: faster installation, no extra equipment requirement.
- * No degradation in the soil, thanks to its rot-proof material.
- * Completely non-polluting for drinking water.
- * High compressive strength.
- * Distributes the load evenly across the surface.

INSTALLATION & STORAGE INSTRUCTIONS

Vertical Application

- *Clean dust and debris off the surface.
- *Place the sheet on the surface with the bumps facing the wall.
- *Fix the sheets to the wall along the top edge of subbasement with fasteners.
- *Sheets to be overlapped each other by a minimum of 20 centimetres.
- *If desired, overlaps can be bonded by means of hot air welding process or self-adhesive insulating tape.
- *Ideal application temperature: -5 °C to +30°C

Horizontal Application

- *Clean dust and debris off the ground.
- *Lay the sheet down on the area with the dimples facing the ground.
- *Sheets to be overlapped by a minimum of 30 centimetres.
- *If required, overlapping areas can be fixed through hot air welding process or self-adhesive insulating tape.
- *Ideal application temperature: -5 °C to +30°C

Storage

- *Should be stored in the upright position and kept away from direct sunlight.



TECHNICAL SPECS	DL 400 €	DL 500 €	DL 600 €	EKL 400 €	EKL 500 €	EKL 600 €
MATERIAL	HDPE					
COLOUR	black/brown					
DIMPLE HEIGHT	8 mm					
NO. OF DIMPLES	>1850 dimples/m ²					
UNIT WEIGHT	400 gr/m ²	500 gr/m ²	600 gr/m ²	400 gr/m ²	500 gr/m ²	600 gr/m ²
COMPRESSIVE STRENGTH	approx. 150 kN/m ²	approx. 200 kN/m ²	approx. 250 kN/m ²	approx. 150 kN/m ²	approx. 200 kN/m ²	approx. 250 kN/m ²
LENGTH	5 / 10 / 15 / 20 m					
WIDTH	0,5 / 1,00 / 1,50 / 2,00 / 2,20 m					
THICKNESS	≥ 0,30 mm	≥ 0,40 mm	≥ 0,50 mm	≥ 0,30 mm	≥ 0,40 mm	≥ 0,50 mm
SERVICE TEMPERATURE	-30 °C to +80°C					

GENERAL DESCRIPTION

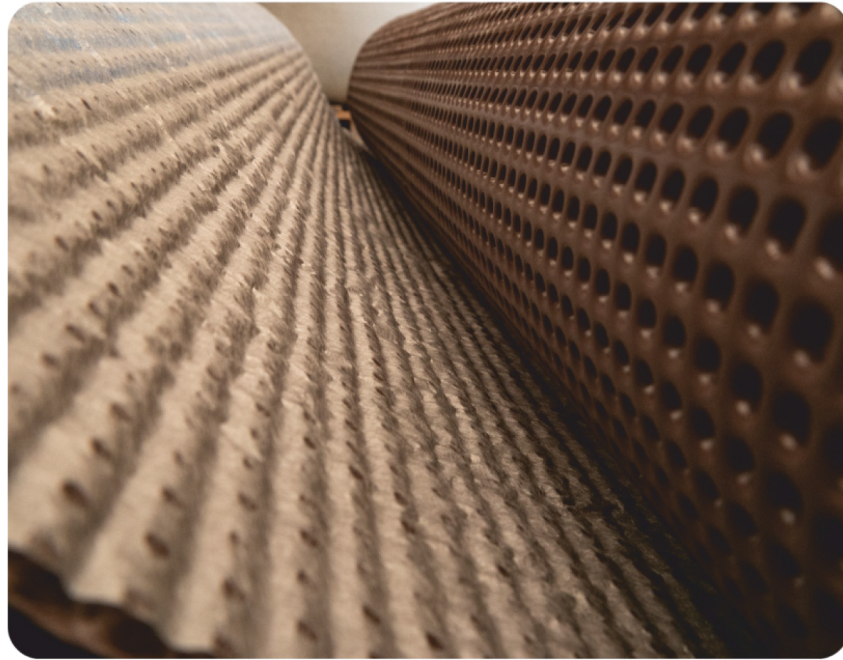
2-layer system which further enhances drainage capacity. The integrated layer of geotextile filters out the soil particles in order to prevent the flow passages from being blocked up.

Composed of a recycled high-density polyethylene with a polypropylene heat-bonded geotextile filter fabric attached to the dimpled surface.

Allows for vertical and horizontal installations.

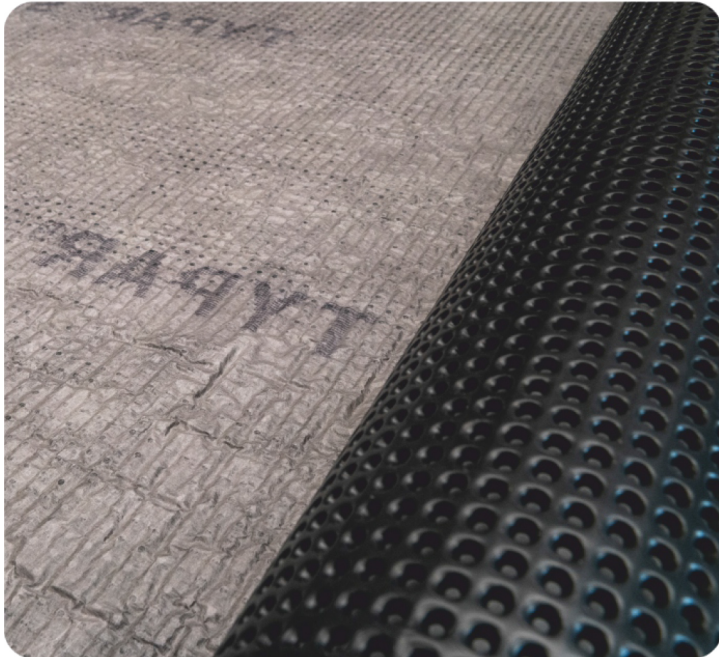
Mainly used for the following applications:

Underground structures, basement-walls, retaining walls, tunnels, underground car parks.



KEY FEATURES & BENEFITS

- * Offers considerably higher drainage capacity than the dimpled sheets without geotextile cloth.
- * The fused-on polypropylene (PP) geotextile filter fabric prevents drainage passages from getting clogged up with sludge, thus ensuring a continuous and uninterrupted drainage!
- * Acts as a protection layer for the waterproofing membrane.
- * High compressive strength.
- * Prevents build-up of hydrostatic pressure allowing the water to drain away to the drainage pipe.
- * 4-in-1 system: separation-filtration-drainage-protection.
- * Completely non-polluting for drinking water.
- * Eco-friendly material.
- * No degradation in the soil, thanks to its rot-proof material.
- * Tough and durable.



INSTALLATION & STORAGE INSTRUCTIONS

Vertical Application

Clean surface thoroughly to prevent damage to the waterproofing layer. Lay out the membrane on the wall with geotextile filter facing the soil. Fix the membrane with fasteners to the top edge of subbasement. Undimpled strip must overlap the dimpled side of the other membrane. At the bottom, membrane should be wrapped around the drainpipe along the all sides. If desired, overlaps can be bonded by means of hot air welding process or self-adhesive insulating tape.

Ideal application temperature: -5 °C to

Horizontal Application

Clean dust and debris off the ground. Lay the sheet down on the ground with the dimples facing the foundation. Sheets to be overlapped by a minimum of 30 centimetres. If required, overlapping areas can be fixed through hot air welding process or self-adhesive insulating tape. Ideal application temperature: -5 °C to +30°C

Storage

*Should be stored in the upright position and kept away from direct sunlight.



DuPont™
Typar®

TECHNICAL SPECS	DL8 GEO	DL10 GEO
MATERIAL	HDPE + PP nonwoven	
COLOUR	black/brown + gray	
DIMPLE HEIGHT	8 mm	10 mm
NO. OF DIMPLES	>1850 dimples/m ²	>2000 dimples/m ²
UNIT WEIGHT	550 gr/m ² + 100 gr/m ² = 650 gr/m ²	750 gr/m ² + 100 gr/m ² = 850 gr/m ²
COMPRESSIVE STRENGTH	approx. 200 kN/m ²	approx. 400 kN/m ²
OPENING SIZE	150 mm	
LENGTH	5 / 10 / 15 / 20 m	
WIDTH	2,00 m	

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IZODRAIN GR SERIES DRAINAGE BOARDS

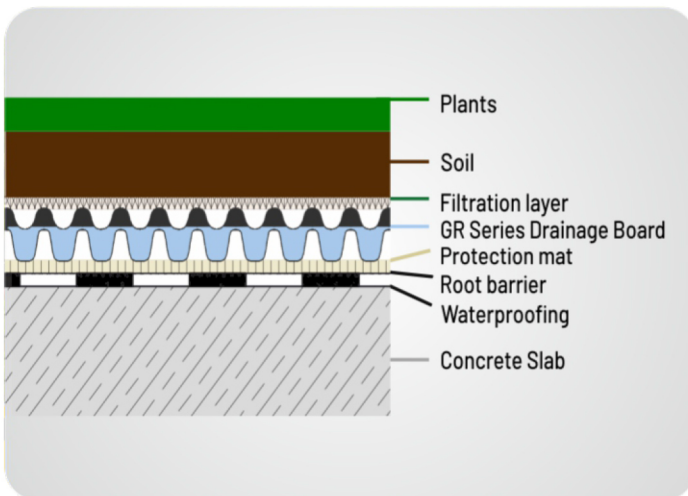
IZODRAIN GR series drainage board which has a bubbly structure made from Recycled HDPE (High-density Polyethylene), is developed especially for Green Roof applications. It has high compressive strength and it can be easily installed.

IZODRAIN GR protects water insulation against mechanical impacts that may occur during and after application. In addition to this, it stores the necessary amount of water in its bubbly structure for plants during the dry seasons of the year. That's why there is no need in continuous watering of plants.

IZODRAIN GR has discharging holes. It provides the discharge of excess water. At the same time by the help of these holes the water vapor which is accumulated in the system, can be easily moved out.

IZODRAIN GR is used especially in the Extensive type of Green roofs. Extensive green roofs have a light soil layer of approximately 7-10 cm. Extensive green roofs allow the grass and sedum types of plants that require little or no maintenance, to be grown.

SYSTEM DETAILS



TECHNICAL SPECS	IZODRAIN GR 20	IZODRAIN GR 25
MATERIAL	HDPE	
COLOR	black	
UNIT WEIGHT	0.80 kg/m ²	1.50 kg/m ²
DIMENSIONS	2.00 m*20 m Roll	0.90 m*1.90 m Board
BUBBLE HEIGHT	20 mm	25 mm
WATER RETENTION CAPACITY	6 lt/m ²	6 lt/m ²
COMPRESSIVE STRENGTH	approx. 180 kN/m ²	approx. 400 kN/m ²

ROOT BARRIER-RB 40

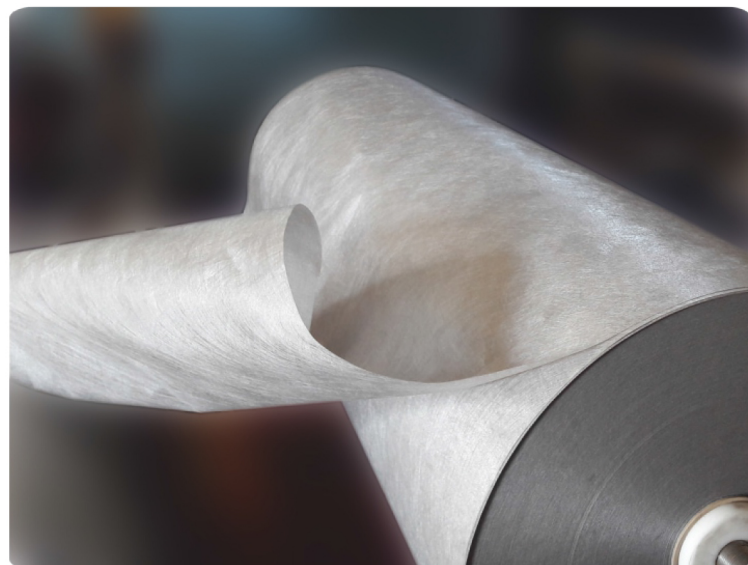
Used to divide the line between the green roof assembly and the waterproofing covering in green roof applications. The tear- and puncture-resistant material prevents root penetration into the underlying waterproof membrane. Made from recycled polyethylene. Resistant to the humic acids produced throughout the decomposition. Acts as an excellent vapour barrier when placed beneath the thermal insulation layer. Will not absorb the water, while allowing free drainage. Non-toxic and non-pollution. Storage: Pallets shall never be stacked on top of each other. Installations: Lay down the barrier on top of the waterproofing membrane prior to green roof drainage system installation. Overlaps are to be 1 meter.

**PROTECTION MATS**

Used to protect the root barrier and waterproofing of green roofs from mechanical damages. It also offers water reservoir. It is made of recycled polyester and compatible with bitumen. Non-rotting and heat-resistant. It must be laid with an overlap of minimum 100 mm.

**FILTER SHEETS**

Prevents the soil particles from migrating into the drainage core by filtering them out while allowing water to flow through. Soil fines are not kept inside the fabric thanks to its pre-compressed structure. It is made from thermally bonded nonwoven polypropylene geotextile and offers a high level of water permeability.



MOULDING

Used to fix the flat edge of the dimpled sheet to the foundation wall so as to prevent unwanted substances from clogging the air gap behind the sheet.



FASTENER

Allows safe attachment of the dimpled membrane to the wall. Prevents fastening points from damages during backfill work.



TERMINATION BAR

Used to finish off the membrane installation at grade level.

