

# NEXLER NexGreen Duo BB 20/150 P

Perforated accumulation and drainage membrane integrated with a geotextile

## TECHNICAL DATA

PROPERTIES OF DIMPLED MEMBRANE	
Composition	high-density polyethylene (HDPE)
Colour	black
Flat edge	one-sided
Membrane thickness	approx. 0,9 mm
Dimple height	20,0 mm
Profile height	20,8 mm
Number of dimples	approx. 400 pcs./m <sup>2</sup>
Air volume between the profiles	14 l/m <sup>2</sup>
Powierzchnia kontaktowa profili z podłożem	approx. 1960 cm <sup>2</sup> /m <sup>2</sup>
PROPERTIES OF GEOTEXTILE	
Composition	polypropylene (PP) fibres
Colour	white
Thickness	approx. 0,8 mm
Mass per unit area	approx. 100 g/m <sup>2</sup>
Tensile strength	ok. 5,7 kN/m
Elongation under tension	
- longitudinal direction	> 63 %
- transversal direction	> 42 %
Static puncture resistance (CBR)	approx. 920 kN
Dynamic puncture resistance	31 mm, +6 mm
Characteristic pore size	170 µm, ± 51 µm
Water permeability perpendicular to the product surface	145 l/(m <sup>2</sup> ·s), -43 l/(m <sup>2</sup> ·s)
PROPERTIES OF GEOCOMPOSITE	
Mass per unit area	ok. 1150 g/m <sup>2</sup>
Thickness at a pressure of 2 kPa	approx. 20,1 mm
Compressive strength	150 kN/m <sup>2</sup>
Tensile strength	
- longitudinal direction	10,1 kN/m, -2,8 kN/m
- transversal direction	12,3 kN/m, -2,5 kN/m

Elongation at maximum load	
- longitudinal direction	74, ± 35%
- transversal direction	58, ± 30%
Temperature resistance	from -40°C to +80°C
HYDRAULIC PROPERTIES OF GEOCOMPOSITE	
Water collection capacity	7,0 l/m <sup>2</sup>
Hole size	5 mm
Drainage capacity	i = 0,01, 20 kPa: 0,73 l/(m·s)
OTHER DATA	
Roll width	2,4 m
Roll length	12,5 m
Roll weight	approx. 34,5 kg
Temperature of use	from +5°C to +30°C
Reference document(s)	EN 13252:2016

## PROPERTIES

- High water retention
- Prevents overloading of rainwater drainage systems
- With evaporation and aeration perforations to allow excess water to drain away and then evaporate and aerate the substrate layer
- Compression resistant
- Highly resistant to mechanical damage thanks to its unique octagonal structure
- Flexible, allows easy adaptation to the shape of the roof
- Resistant to weather conditions
- Resistant to plant root overgrowth and decomposition



WATER RETENTION



EASY AND QUICK INSTALLATION



INTEGRATED WITH GEOTEXTILE



RESISTANT TO PLANT ROOT OVERGROWTH

## APPLICATION

- Green roofs, e.g.: terrace roofs, car park roofs
  - Extensive
  - Semi-intensive
  - Intensive
- Water storage



INTENSIVE ROOFS



SEMI-INTENSIVE ROOFS



EXTENSIVE ROOFS

## PACKAGING

### Poland

- Rolls: 30 m<sup>2</sup>
- Number of rolls per pallet: 4 pcs.
- Pallet size: 1,1 x 1,1 m

### Export

- Rolls: 30 m<sup>2</sup>
- Number of rolls per pallet: 4 pcs.
- Pallet size: 1,1 x 1,1 m

## METHOD OF USE

### CONDITIONS OF USE

Works should not be carried out during precipitation.

### SUBSTRATE PREPARATION

The substrate on which **NexGreen Duo BB 20/150 P** is laid should be even, clean and free of sharp protruding edges.

### PRODUCT CONTROL

Check the production date on the packaging before use. The product should not be incorporated beyond its shelf life. The membrane must be uniform along its entire length, with no visible mechanical damage, cracks or deformations.

### PRODUCT PREPARATION

**NexGreen Duo BB 20/150 P** is a ready-to-use product.

### APPLICATION METHOD

Lay the **NexGreen Duo BB 20/150 P** membrane on top of the NexGreen Geo Safe 350 geotextile laid on root growth resistant waterproofing – NEXLER Green Roof PYE PV250 S50 or NEXLER Green Roof PYE PV200 S42 (roof with classic layering) or on a thermal insulation laid on top of a waterproofing (roof with reverse layering). It is important to ensure that the transverse overlaps are not positioned in a single line and that the dimples are facing the waterproofing with the geotextile facing upwards. Adjacent sections should be joined together by pressing buckets over each other. The minimum overlap width is three dimple rows. To expose the dimple row, peel off and roll upwards a section of geotextile. Cut the membrane in appropriate places, fitting precisely to the obstacle encountered (e.g. equipment on the roof, drainage inlets).

Before spreading the vegetation substrate or aggregate, it is recommended to weigh down the ends of the membrane so that successive strips do not shift.

Lay **NexGreen Duo BB 20/150 P** with particular care, avoid damaging the waterproofing and geotextile layer.

The installation of the membrane should be carried out in accordance with the technical design drawn up for the specific building, in accordance with the applicable standards and regulations. The roof system should be designed with an appropriate pitch (minimum 2%) to prevent water piling up which would adversely affect plant cultivation.

### CONTROL OF PERFORMANCE

When laying **NexGreen Duo BB 20/150 P**, ensure that the membrane adheres evenly to the substrate, with no visible indentations. Check that successive layers have not shifted and check overlap widths. Ensure that the membrane is properly cut around details such as inlets, chimneys, eaves, skylights to maintain maximum tightness.

### TOOLS AND TOOL CLEANING

Multi-purpose (segmented) knife, shears, rotary cutter.

### STORAGE AND TRANSPORT

The shelf life of the product is 24 months from production date specified on the packaging. Store in dry rooms. The product must be protected from direct sunlight.

### NOTES

Works should be carried out in accordance with technical conditions, manufacturer's instructions, health and safety standards and regulations.

After works are finished, hand over the remaining content of the product and the container to authorised companies.

### GENERAL RECOMMENDATIONS

Technical data and information on the method of use are given for a temperature of 23°C ± 2°C and a relative air humidity of 55%.

Protect the membrane from mechanical damage during further construction work, avoid punctures and tears. Care must be taken to ensure that the substrate is not spread from too great a height, causing mechanical damage, crushing or displacement of the membrane.

**NexGreen BB 20/150 P** should be covered with subsequent layers of the structure immediately after it is laid.

## **IMPORTANT INFORMATION**

Please refer to the detailed conditions of use of the product before use.

We guarantee the quality of our materials as part of our terms of sale and delivery. For buildings with special requirements that are not covered by this manual, we provide our Customers with our own professional advisory service.

The manufacturer has no influence on the improper use of the material, its use for other purposes or under conditions other than those described above. The guarantee only covers the quality of the delivered product. The correct and therefore effective use of the product is not subject to our control.

Neither the manufacturer nor his authorized representative may be held liable for any loss incurred as a result of improper use or storage of the product.

Employees of the company are authorized to provide technical information only and solely in accordance with this Technical Data Sheet. Information other than that contained in this sheet should be confirmed in writing.

If you have any doubts, consult the manufacturer.

Once we have issued a new Technical Data Sheet, this manual is no longer valid.

## **CONTACT DETAILS**

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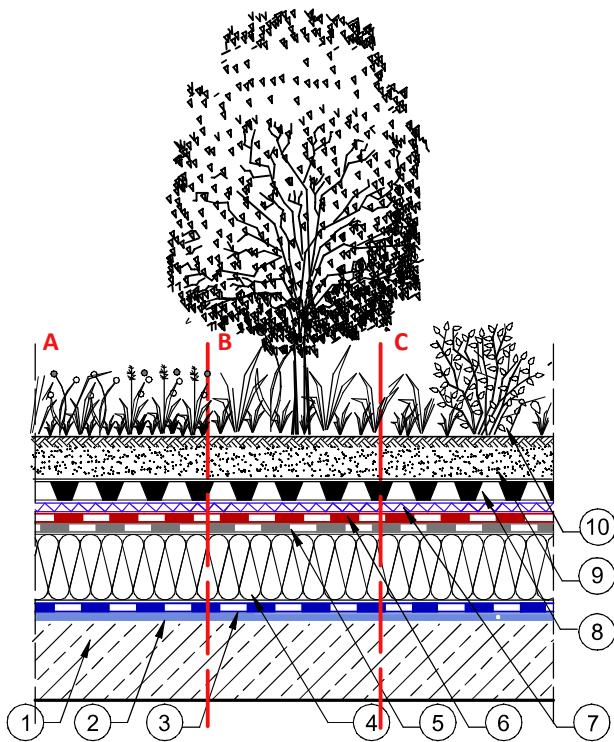
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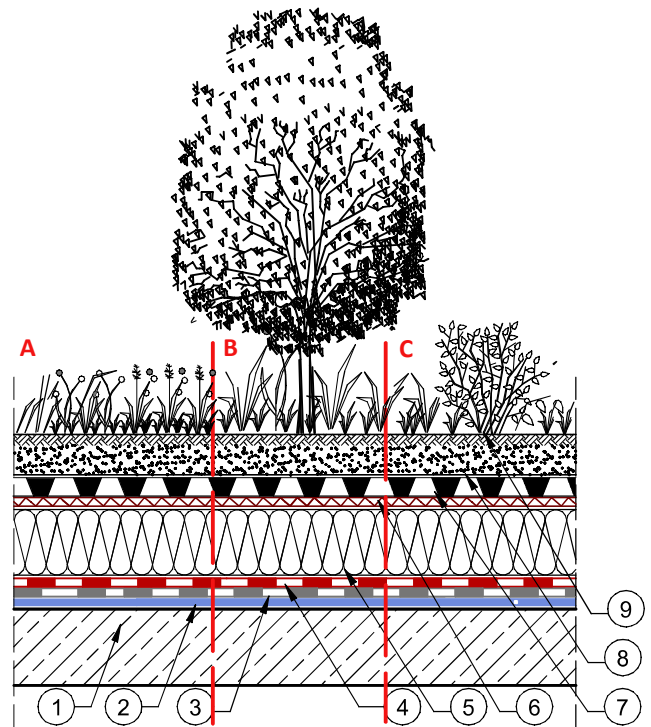
## DETAILS

Green roof planted with extensive(A)/intensive(B)/semi-intensive(C) vegetation with thermal insulation, classic layering



1. Concrete substrate constructed with a slope of min. 2%
2. Bituminous primer NEXLER BITFLEX Primer or NEXLER Penetrator G7
3. Vapour barrier made of NEXLER Alu S40 weldable bituminous felt
4. Thermal insulation - XPS boards
5. Self-adhesive underlayer bituminous felt NEXLER Plan PYE G150 S30 SP
6. Weldable bituminous felt resistant to plant root overgrowth NEXLER Green Roof PYE PV250 S50
7. Separation and diffusion geotextile NexGreen Geo Safe 350
8. Perforated accumulation and drainage membrane integrated with NEXLER NexGreen Duo BB 20/150 P geotextile
9. Substrate layer selected according to type of greenery
10. Plant zone

Green roof planted with extensive(A)/intensive(B)/semi-intensive(C) vegetation with thermal insulation, reverse layering



1. Concrete substrate constructed with a slope of min. 2%
2. Bituminous primer NEXLER BITFLEX Primer or NEXLER Penetrator G7
3. Weldable underlayer bituminous felt NEXLER PREMIUM PYE G200 S40
4. Weldable bituminous felt resistant to plant root overgrowth NEXLER Green Roof PYE PV250 S50
5. Thermal insulation - XPS boards
6. Separation and diffusion geotextile NexGreen Geo Safe 350
7. Perforated accumulation and drainage membrane integrated with NEXLER NexGreen Duo BB 20/150 P geotextile
8. Substrate layer selected according to type of greenery
9. Plant zone