BECO
BERMÜLLER

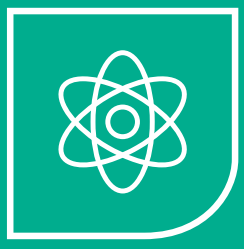
BETEX TP

Non-woven Fabrics

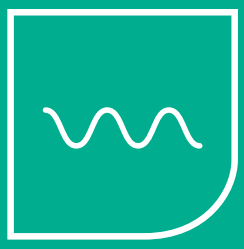
beco-bermueller.com

KEY ADVANTAGES
at a glance

→ Good mechanical and hydraulic filtration properties



→ Excellent chemical resistance



→ Good adaptability

→ Easy to install

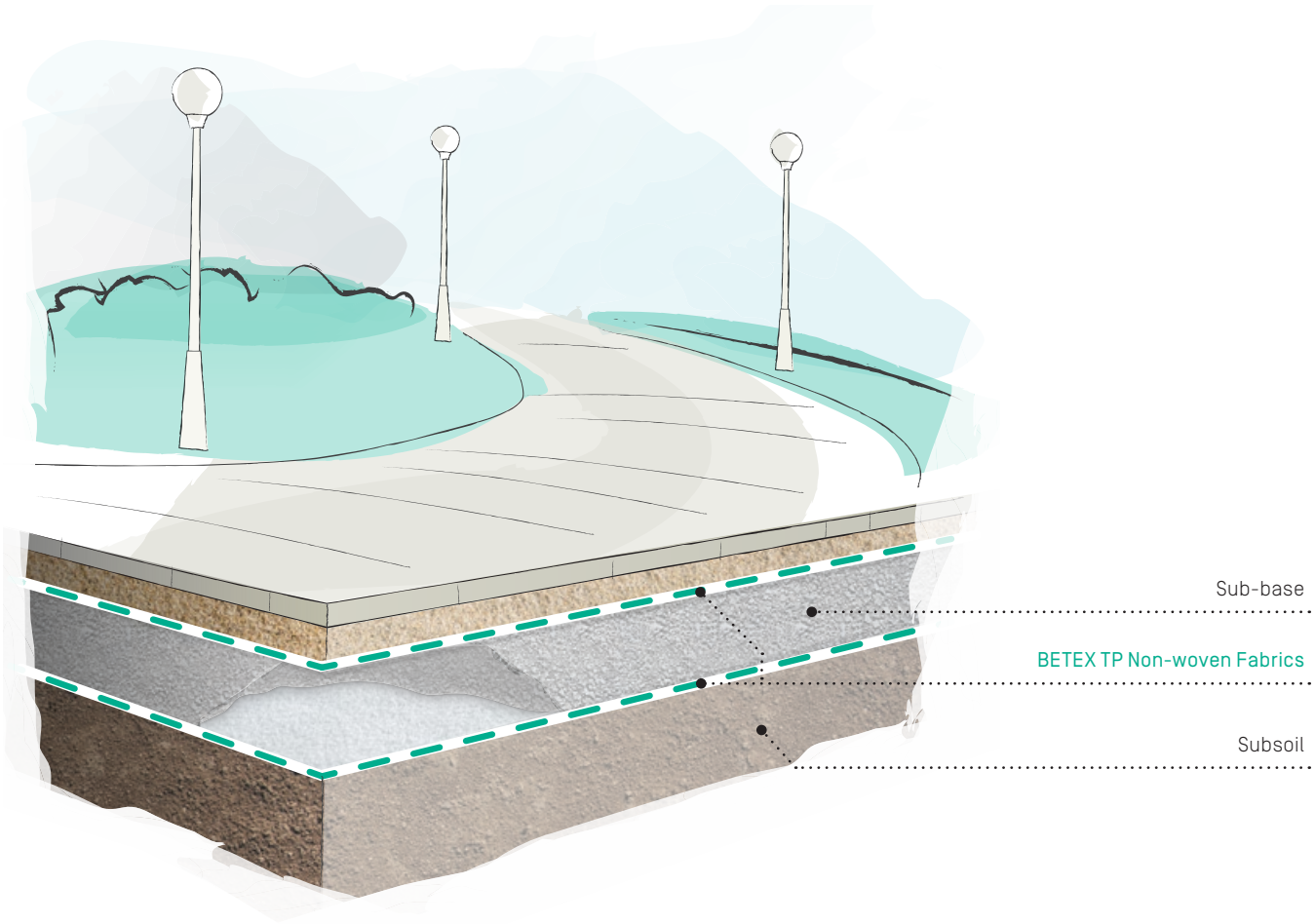
BETEX TP
Non-woven Fabrics

The range of applications for non-woven geotextiles in construction is as wide as the range of structures in which they are used. Non-woven fabrics are the archetypal geosynthetic. Depending on the structure and composition of the fabric, they can be used as a filtering, separation and/or protective layer in highway construction, buildings, civil engineering, gardens and landscaping.
The mode of operation is always similar, but the requirements of different construction projects can vary considerably.

PRODUCT DETAILS
and properties

BETEX TP is a mechanically-bonded staple fibre non-woven geotextile made of polypropylene (PP). This polymer has high chemical resistance, even to aggressive media such as soils with a high pH value. The raw material polypropylene is easy to process and, as a result of its high elasticity, is also extremely flexible without any associated loss in robustness.

BETEX TP Non-woven Fabrics can thus be used to clad even complex shapes to excellent effect. The exceptionally wide range of BETEX TP Non-woven Fabrics allows them to be used in practically all types of application.



FUNCTIONS
BETEX TP Non-woven Fabrics

Separation

BETEX TP Non-woven Fabrics can be used to separate two different types of soil or unbound sub-base layers from each other. This separation is extremely important, for example, in cases where the subgrade soil must be prevented from mixing with a high-quality sub-base layer. By separating the layers, the quality of the layer structure can be sustained in the long-term and the useful life of the structure can be optimised.

The separating function of the fabric often means that a blinding layer can be omitted.

Filtration

The filter function of the non-woven fabric must be tailored to the particular circumstances, depending on the grain mobility within the soil and the influence of water on the layers to be separated. In simple cases, such as those assumed in M Geok E StB 2016 (Leaflet on the use of geosynthetics in earthworks for highway construction), BETEX TP Non-woven Fabrics provide the necessary mechanical and hydraulic filtration. For more complex applications, the ideal product can be selected from the BETEX TP product range after determining the filter requirements and taking into account the characteristic aperture width, the water permeability and possibly also the filtration length. In general, the functions of separation and filtration complement each other, and this dual function is often a prerequisite in geotechnical applications.

Protection

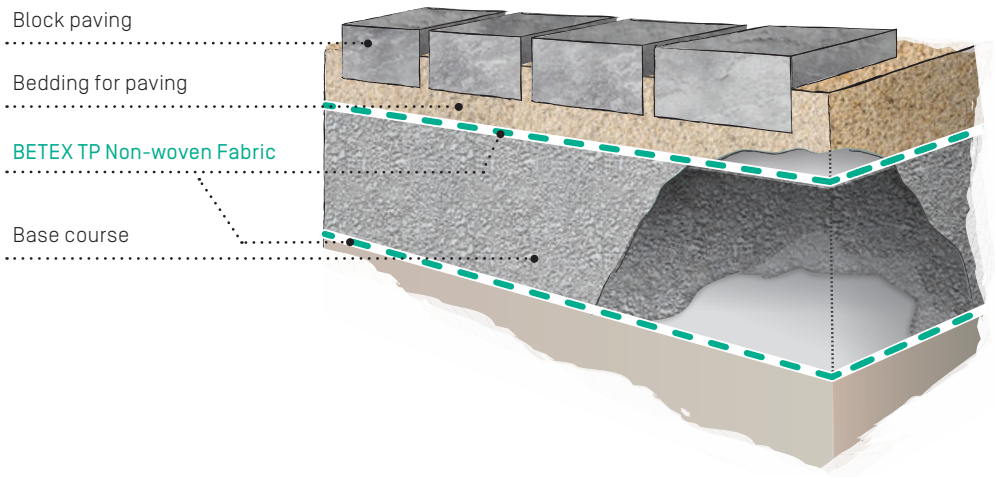
The protective function of the fabric can be considered in isolation from the two functions described above. In this case, the purpose is to protect a structure or another functional component, such as a sealing membrane, from mechanical damage. Such protection may be required, for example, when concreting or when positioning coarse-grain mineral construction materials. Here, BETEX TP Non-woven Fabrics provide the necessary protection. They can minimise the effects of point loads and absorb shear forces.

Our BETEX TP Non-woven Fabrics are available in various thicknesses from 2.3 to 12 mm to provide the required level of protection for an extremely wide range of applications.

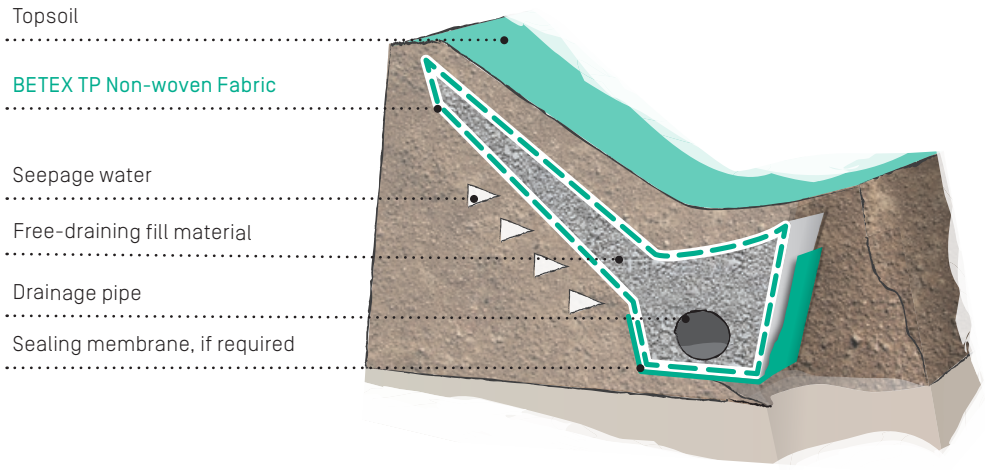
APPLICATIONS
BETEX TP Non-woven Fabrics

BETEX TP Non-woven Fabrics are used as separating and filtering layers in situations where soil and mineral fill materials need to be effectively separated in order to prevent the migration of particles and the formation of unstable interfaces.

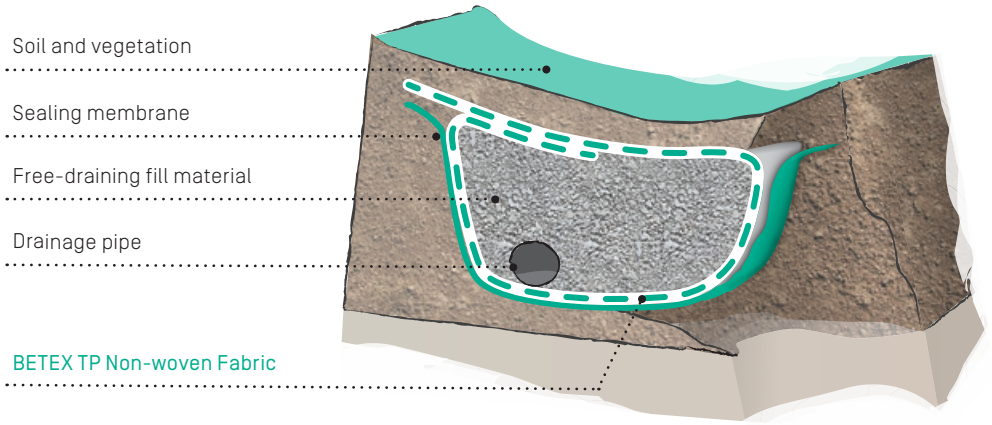
Separation and filtration in traffic infrastructure



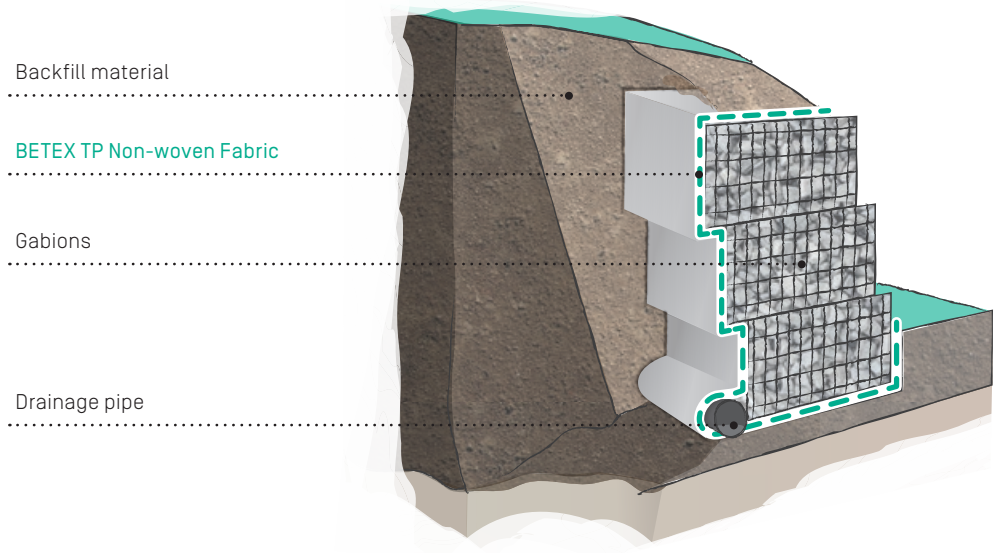
Drainage layer for slopes (perforated pipe)



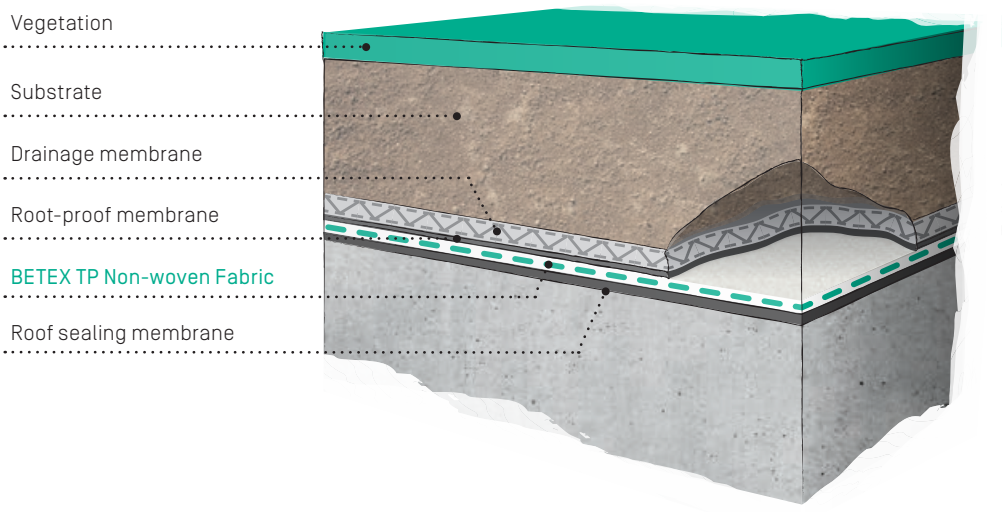
Separation and filtration layer for drainage systems



Filter layer behind gabions



Separation and filtration layer for green roofs



Applications matrix at a glance

We are happy to supply current data sheets, specifications, certificates and technical verifications on request.

Tel.: +49 (0) 911 642 00 – 0
Fax: +49 (0) 911 642 00 – 90
Website: www.beco-bermueller.com
Email: info@beco-bermueller.com

Properties	TP 15	TP 17	TP 30	TP 40	TP 50	TP 80
Product type	Mechanical bonded nonwoven					
Raw material	Polypropylene (PP) white					
Geotextile robustness class (GRK)	3	3	4	5	5	5
Mass per unit area (g/m²)	150	170	300	400	500	800
Thickness (mm)	2,3	2,6	3,5	4,3	5,0	6,5
Fields of application						
Building protection				○	○	○
Roof greening	●	●	●	●	●	●
Landfill construction			●	●	●	●
Drainage systems			●	●	●	●
Green areas	●	●	●	●	●	●
Home gardens	●	●	●	●	●	●
Retention basins			○	○	○	○
Reservoirs			○	○	○	○
Ponds			○	○	○	○
Underground car park greening	●	●	●	●	●	●
Road construction	●	●	●	●	●	●

● suitable ○ partly suitable (project-related assessment necessary)

Special types available on request.

INSTALLATION INSTRUCTIONS
BETEX TP Non-woven Fabrics

To be considered:

1. The subsoil should be as flat and even as possible in order to ensure full contact with the fabric across its entire surface.
2. The fabric must be laid flat and free of creases. Creases resulting from the shape of the structure should be removed by cutting the fabric and allowing it to overlap like roof shingles.
3. Fill material must be placed on top of the BETEX TP Non-woven Fabric on the day that the fabric is laid.
4. When filling and compacting material on top of the fabric, care must be taken to prevent displacement or creasing of the fabric.

Our detailed installation and laying instructions for BETEX TP Non-woven Fabrics must also be followed.

ADVANTAGES
BETEX TP

- → Good mechanical and hydraulic filtration properties
- → Excellent chemical resistance
- → The protective layer can be selected according to the guideline leaflet
- → Robust, to cope with installation conditions on site
- → Malleable and easy to lay
- → Easy to cut to size using a cutter or Stanley knife

BECO BERMÜLLER

Bermüller & Co GmbH
Rotterdamer Str. 7
90451 Nuremberg, Germany

Telephone: +49 (0) 911 - 64200 - 0
Telefax: +49 (0) 911 - 64200 - 90

beco-bermueller.com

GEO.20166 | B | 02.2021-EN