

TS – Separation & Filtration Nonwovens

TenCate Polyfelt® TS geotextiles are mechanically bonded continuous filament nonwovens made from 100 % UV stabilized polypropylene. They have been used for decades as separation and filtration elements in a large number of civil engineering applications.



TenCate Polyfelt® TS

TS-geotextiles stabilise base courses over subgrades with low bearing capacity

TS-geotextiles ensure the uniform thickness of the base course by preventing the ingress of fill material into the fine-grained subgrade. Installation damage is prevented by the outstanding puncture resistance. The high tensile strength of TS in longitudinal, transverse and diagonal direction provides additional stability to the structure.

TS-geotextiles maintain the permanent function of drainage systems

TS-geotextiles offer excellent filtration properties, characterized by high water permeability and optimum soil-retention capability, even under high mechanic and hydraulic stress. This ensures that the drainage gravel keeps its water flow capacity, thus providing quick and efficient drainage of the soil.

TS-geotextiles are robust and long-lasting

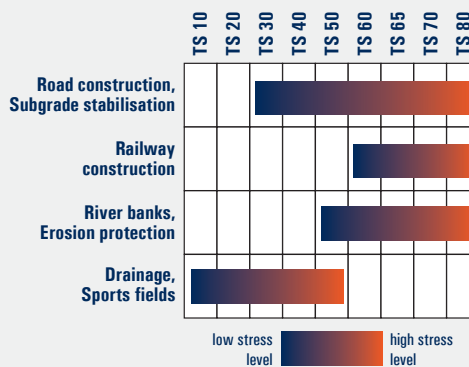
The manufacturing method (a continuous process with endless filaments) guarantees the use of high-quality raw materials. TS is resistant to all chemical and biological media usually occurring in soils and construction materials. It cannot be dissolved by water and therefore is harmless to ground water. TS-geotextiles are equipped with a UV-stabilizer, providing extended resistance to direct sunlight.

Service is a part of quality

Thanks to a worldwide network of subsidiaries and trading partners TS-geotextiles are quickly available. Standard grades can be delivered promptly. For technical questions an experienced team of experts is at your service.

TS-geotextile grade selection

The grade selection chart below gives just a rough guidance. For a detailed design please contact our technical staff, or use our special design software. Obtain your free copy of the TenCate design CD by emailing the relevant sales office overleaf, or use our special design software on our homepage www.tencate.com/geosynthetics.



The advantages at a glance:

- Stabilizes base courses over low bearing capacity subgrades
- Maintains the function of drainage systems
- High long-term resistance and robustness
- Technical support by TenCate Service Team

Applications

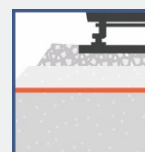
Unpaved roads



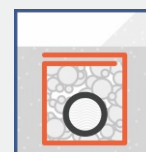
Road construction



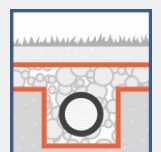
Railway construction



Drainage trenches



Area drainage e.g. sports fields



TS – Separation & Filtration Nonwovens – Technical Data

| Properties [Standard] | Unit | TS 10 (4.01) | TS 20 (4.01) | TS 30 (4.01) | TS 40 | TS 50 | TS 60 | TS 65 | TS 70 | TS 80 | |
|--|-----------|---------------------------|-----------------|-----------------|-------|-------|-------|-------|-------|-------|-------|
| Mechanical Properties | | | | | | | | | | | |
| Tensile strength <small>[EN ISO 10319]</small> | MD | kN/m | 8 | 10 | 12 | 14 | 16 | 20 | 22 | 25 | 29 |
| | CD | kN/m | 8 | 10 | 12 | 14 | 16 | 20 | 22 | 25 | 30 |
| Elongation at max. load <small>[EN ISO 10319]</small> | MD | % | 90 | 90 | 90 | 95 | 95 | 95 | 95 | 95 | 95 |
| | CD | % | 75 | 75 | 75 | 46 | 46 | 46 | 46 | 46 | 46 |
| Energy value <small>[EN ISO 10319]</small> | (MD+CD)/2 | kJ/m ² | 3.5 | 4.3 | 5.0 | 5.8 | 6.2 | 8.0 | 9.0 | 10.5 | 12.5 |
| Static puncture resistance (CBR-Test) <small>[EN ISO 12236]</small> | | N | 1240 | 1500 | 1800 | 2100 | 2350 | 3050 | 3350 | 3850 | 4400 |
| Cone drop test (hole-Ø) <small>[EN ISO 13433]</small> | | mm | 26 | 24 | 20 | 24 | 22 | 19 | 17 | 15 | 13 |
| Hydraulic Properties | | | | | | | | | | | |
| Permeability vertical <small>[EN ISO 11058] (Δh = 50 mm)</small> | | l/m ² s (mm/s) | 140 | 125 | 105 | 125 | 115 | 90 | 85 | 80 | 75 |
| Opening size O ₉₀ <small>[EN ISO 12956]</small> | | µm | 130 | 115 | 100 | 100 | 100 | 95 | 95 | 90 | 90 |
| Identification Properties | | | | | | | | | | | |
| Thickness <small>[EN ISO 9863-1]</small> | 2 kPa | mm | 0.8 | 0.9 | 1.2 | 1.8 | 1.9 | 2.4 | 2.5 | 2.9 | 3.3 |
| Mass per unit area <small>[EN ISO 9864]</small> | | g/m ² | 105 | 125 | 155 | 180 | 200 | 260 | 285 | 325 | 385 |
| Forms of supply | | | | | | | | | | | |
| Width | | m | 2 / 4 | 2 / 4 | 2 / 4 | 2 / 4 | 2 / 4 | 2 / 4 | 2 / 4 | 2 / 4 | 2 / 4 |
| Length | | m | 300 | 250 | 225 | 200 | 175 | 135 | 125 | 100 | 90 |

The values given are average values obtained in our laboratories and in testing institutes. The right is reserved to make changes without notice at any time.

TENCATE GEOSYNTHETICS AUSTRIA GMBH
Schachermayerstr. 18 Tel. +43 732 6983 0, Fax +43 732 6983 5353
A-4021 Linz, Austria service.at@tencate.com, www.tencategeosynthetics.com

BeNeLux Tel. +31 546 544 811 service.nl@tencate.com
Central Eastern Europe Tel. +43 732 6983 0 service.at@tencate.com
Czech Republic Tel. +420 2 2425 1843 service.cz@tencate.com
France | Africa Fax +33 1 34 23 53 48 service.fr@tencate.com
Germany Tel. +49 30 3435 02 10 service.de@tencate.com
Italy Tel. +39 0362 34 58 11 service.it@tencate.com
Near Middle East Tel. +971 4810 3295 service.nme@tencate.com

Poland Tel. +48 12 268 8375 service.pl@tencate.com
Russia | CIS Tel. +43 732 6983 0 service.ru@tencate.com
Scandinavia | Baltics Tel. +31 546 544 811 geonordic@tencate.com
Spain | Portugal Tel. +34 607 499 962 service.es@tencate.com
Turkey Tel. +43 732 6983 0 service.tr@tencate.com
UK | Ireland Tel. +44 1952 588 066 service.uk@tencate.com



Quality - Environment
ISO 9001
ISO 14001
www.dekra.com

TenCate Geosynthetics Austria Gesm.b.H, TenCate Geosynthetics France S.A.S and TenCate Geosynthetics Netherlands b.v. are certified for the design, manufacturing and sales of geotextile and geotextile related products.