

TERRAM BC PREMIUM Geotextiles



Description

TERRAM BC nonwovens are manufactured from high-quality, UV-stabilized polypropylene/polyethylene core-sheath fibers (virgin material).

The fibers are thermally bonded to form a highly durable nonwoven fabric.

As a result, TERRAM BC nonwovens offer exceptional filtration properties, high mechanical strength, and outstanding long-term durability in all soil types.

Function

Separation - separates different soil types from each other or from other construction elements

Filtration – ensures water permeability while filtering out the smallest soil particles

Protection – protects components or waterproofing from mechanical stress

Notes

The products are delivered packaged in PE film to protect them from damage caused by UV radiation. It is recommended to keep the products packaged until installation. Once removed from the film, they should be installed within 14 days and adequately covered to protect against unnecessary UV radiation.

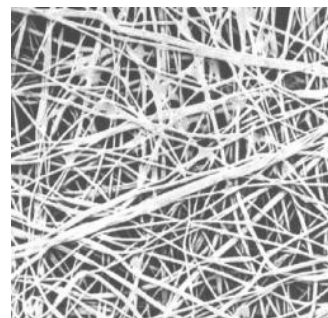
As part of its continuous improvement process, EcoTrade Leipzig GmbH reserves the right to change the properties listed here without notice.

Durability classes

According to the technical guideline on the use of geosynthetics in earthworks for road construction (M Geok E, 2016 edition) into robustness classes ranging from 1 to 5 to ensure their proper application.

Geotextile Robustness Class (GRK)	Required punch penetration force $FP_{5\%}$	Mass per unit area Required $m_{A,5\%}$
2	$\geq 1.0 \text{ kN}$	$\geq 100 \text{ g/m}^2$
3	$\geq 1.5 \text{ kN}$	$\geq 150 \text{ g/m}^2$
4	$\geq 2.5 \text{ kN}$	$\geq 250 \text{ g/m}^2$
5	$\geq 3.5 \text{ kN}$	$\geq 300 \text{ g/m}^2$

Requirements for the 5% minimum quantile of the puncture resistance and mass per unit area



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Application Overview

	T700 BC	T900 BC	T1000 BC	T1300 BC	T1500 BC	2000 BC	3000 BC	4000 BC	4500 BC
GRK Class	1	2	2	3	3	3	4	5	5
Road and Path Construction				X	X	X	X		
Railways				X		X	X	X	
Horticulture	X	X	X	X		X	X		
Green Roof		X	X	X	X	X	X	X	
Hydraulic Engineering							X	X	
Landfill Construction							X	X	X
Environmental construction			X	X	X	X	X	X	X

Technical Specifications

	T700 BC	T900 BC	T1000 BC	T1300 BC	1500 BC	T2000 BC	T3000 BC	T4000 BC	T4500 BC
Mechanical Properties									
Tensile strength (EN ISO 10319) kN/m	6.0 (-0.6)	7.5 (-0.75)	8.0 (-0.8)	10.5 (-1.05)	12.5 (-1.25)	14.5 (-1.45)	18.0 (-1.8)	22.0 (-2.2)	30.0 (-3.0)
Elongation (EN ISO 10319) %	24 (± 15)	30 (± 15)	30 (± 15)	30 (± 15)	30 (± 15)	30 (± 15)	30 (± 15)	30 (± 15)	35 (± 15)
(CBR) Penetration force (EN ISO 12236) N	1,050 (-105)	1,350 (-135)	1,500 (-150)	2,000 (-200)	2,250 (-225)	2,750 (-275)	3,250 (-325)	4,300 (-430)	5,350 (-535)
Conical drop test (EN ISO 13433) mm	42 (+ 8)	40 (+ 8)	38 (+ 8)	34 (+ 8)	32 (+ 6)	26 (+ 6)	24 (+ 5)	22 (+ 4)	20 (+ 4)
Hydraulic properties									
Water permeability (k_{HD}) (EN ISO 11058) l/m ² s	130 (-40)	105 (-30)	100 (-30)	80 (-25)	75 (-25)	65 (-20)	55 (-15)	45 (-15)	35 (-10)
Opening width (c_{90}) (EN ISO 12956) µm	180 (± 50)	160 (± 50)	150 (± 50)	130 (± 40)	125 (± 40)	110 (± 30)	100 (± 30)	85 (± 25)	75 (± 25)
Physical Properties									
Material thickness at 2 kPa (EN ISO 9863-1) mm	0.60	0.70	0.72	0.90	0.95	1.10	1.20	1.40	1.60
Weight per unit area (EN ISO 9863) g/m ²	90	110	120	155	175	210	250	330	400
Durability									
Weather resistance 50 MJ/m ² (EN 12224) %						>90			
Microbiological resistance (EN 12225) %						No effect			
Resistance to acids/alkalis (EN 14030) %						No effect			
Oxidation after 85 days (100 years) (EN 12226) %						>90			

*The values given are averages



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