

DC-Drainage Mats

TenCate Polyfelt® DC are geocomposites comprising a geonet and a filter geotextile on one or both sides. The geonet is made from high density polyethylene (HDPE) and the filter geotextile from polypropylene (PP). They have a very low compressability, resulting in high discharge capacity even under high surcharge load. They are used in all kind of surface drainage applications.



TenCate Polyfelt® DC

Effective surface drainage even under high surcharge loads

DC drainage mats offer the same flow rates as conventional drainage gravel at a considerably reduced thickness. They reduce the space requirements and thus the excavation costs. The working trench can be refilled with the excavation material, thus saving on backfilling costs.

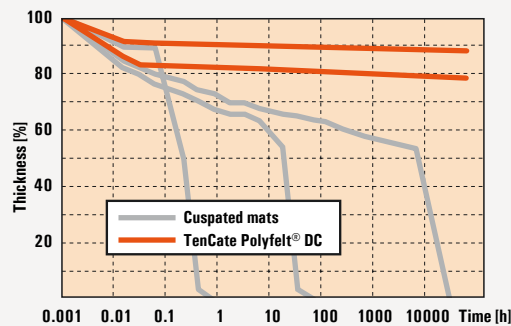
Thanks to their structure, DC drainage mats are highly pressure resistant, and therefore offer adequate drainage even under high surcharge loads. They are also suitable in cases where both pressure and shear stresses are evident (such as along slopes or walls).

DC drainage mats can be easily installed. They are available in rolls of 2 m or 4 m width and can be cut to size using a construction knife. Please ask for our detailed installation guidelines.

Highest quality for long-term drainage

The controlled manufacturing process guarantees a consistently high quality. This simplifies the quality control on the construction site.

Both geonet and filter geotextile offer excellent chemical and biological resistance. Therefore they can be used harmlessly in contact with soil and construction materials such as concrete.



Reduction of thickness at 200 kPa surcharge load over a long period of time (Testing laboratory: GEOTRAC / UK)



The advantages at a glance:

- Reduced excavation costs
- Reduced costs for deposition of excavation material
- Easier quality control on the site
- High compression resistance

Applications

Wall and cellar drainage



Soil retaining structures



Cut-and-cover tunnels



Landfill surface drainage/sealing



Bridge abutments



DC-Drainage Mats – Technical Data

Properties [Standard]	Unit	DC 401E	DC 601E	DC 402E	DC 602E	
Type of product	-	Geocomposite (Geonet + Filter geotextile on one side)		Geocomposite (Geonet + Filter geotextile on both side)		
In-plane flow rate q - MD i = 1	20 kPa	l/ms	1.26	1.91	0.62	1.40
	50 kPa		1.11	1.71	0.51	1.25
	200 kPa		0.76	1.30	0.35	1.00
	400 kPa		0.43	0.90	0.24	0.65
i = 0,1 [ISO 12958, hard – hard, Specimen size 380 x 300 mm]	20 kPa	l/ms	0.23	0.43	0.11	0.30
	50 kPa		0.20	0.39	0.09	0.27
	200 kPa		0.13	0.30	0.06	0.18
	400 kPa		0.10	0.20	0.04	0.16
Thickness [EN ISO 9863-1]	2 kPa	mm	4.2	6.3	5.2	6.6
	20 kPa	mm	4.0	6.1	4.8	6.4
	200 kPa	mm	3.8	5.8	4.2	6.0
Tensile strength	MD/CD	kN/m	12/9	13/10	19/17	20/17
Elongation [EN ISO 10319]	MD/CD	%	40/50	40/50	40/50	40/50
CBR puncture resistance [EN 12236]		kN	1.8	2.0	3.2	3.4
Thickness under creep-load (pressure 100 kPa) after 25 years (extrapolated) [EN 1897]		mm	-	-	4.0	6.0

Properties [Standard]	Unit	all grades	Forms of supply	Unit	DC 401/402E	DC 601/602E
Filter Geotextile:						
Type of product	-	Nonwoven	Width*	m	2	2
Raw material	-	100 % PP	Length	m	25	25
CBR puncture resistance [EN ISO 12236]	kN	1.4	Width*	m	4	4
Cone drop test (hole diameter) [EN ISO 13433]	mm	30				
Water permeability (vertical) [EN ISO 11058]	l/m ² s	90	Length	m	50	65
Opening size O ₉₀ [EN ISO 12956]	mm	0.10	*) The filter geotextile projects by 10 cm on one side each over the edge of the geonet			
Mass per unit area [EN ISO 9864]	g/m ²	120				
Geonet:						
Raw material	-	Polyethylene (HDPE)				
Reduction of thickness under long term load [EN 1897-01, 1000 Std., 200 kPa]	%	< 3				

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 5983 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. +40 6074 3751 61 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 5983 0 service.tr@tencate.com
UK | Ireland Tel. +44 1952 588 066 service.uk@tencate.com

