

Megadrain – Drainage Mats

TenCate Polyfelt® Megadrain is a drainage product made of three-dimensional polypropylene monofilaments combined with one or two layers of polypropylene filter geotextile. TenCate Polyfelt® Megadrain has an extremely high voids content offering a high in-plane flow capacity. TenCate Polyfelt® Megadrain drainage mats are used for surface drainage applications, replacing conventional drainage gravel layers.



TenCate Polyfelt® Megadrain

TenCate Polyfelt® Megadrain is a drainage mat with high in-plane water discharge capacity

TenCate Polyfelt® Megadrain drainage mats reduce the space required for drainage systems, and thus reduce construction costs. They offer the same flow rates as conventional drainage gravel at a considerably reduced thickness. One roll replaces up to 20 tons of gravel. The working trench can be refilled with the excavation material thus saving costs on backfilling.

Due to its extremely high flow rate, TenCate Polyfelt® Megadrain drainage mats are suitable for structures with low inclination where large quantities of water need to be drained off.

TenCate Polyfelt® Megadrain 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. The mats are very flexible and can be bent easily into edges of the construction.

TenCate Polyfelt® Megadrain drainage mats guarantee highest quality

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

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



The advantages at a glance:

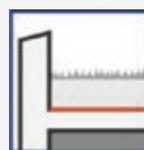
- Reduced excavation and construction costs
- Reduced costs for deposition of excavation material
- Easier quality control on the site
- High in-plane water flow rate



Low roll weight (left), secure overlap (right)

Applications

Roof drainage



Landfill surface drainage/sealing



Wall and cellar drainage



Retaining wall drainage



Megadrain – Drainage Mats – Technical Data

Properties [Standard]	Unit	730-12	2030-12	540-12	740-12	1240-12	2040-12
Type of product	-	Drainage composite with filter on one side		Drainage composite with filter on both sides			
Raw material	-	PP (monofilament mat) + PP UV-stabilized (filter)					
In-plane flow capacity*							
i = 1	20 kPa l/m.s	2.40	5.30	1.10	2.20	3.00	5.20
	50 kPa l/m.s	2.20	2.70	1.00	2.00	2.00	2.50
	100 kPa l/m.s	1.60	1.00	0.90	1.40	0.70	1.00
	200 kPa l/m.s	0.35	-	0.80	0.30	-	-
i = 0.04	20 kPa l/m.s	0.45	1.20	0.13	0.40	0.50	1.10
[EN ISO 12958 – soft / hard]	50 kPa l/m.s	0.40	0.50	0.12	0.35	0.40	0.50
[MD 540-12 – hard / hard]	100 kPa l/m.s	0.30	0.20	0.10	0.25	0.20	0.20
	200 kPa l/m.s	0.09	-	0.09	0.08	-	-
Thickness [EN ISO 9863-1]	2 kPa mm	8	20	5.5	8	15	20
Tensile strength [EN ISO 10319]	kN/m	8/8	9/9	17/18	17/18	17/18	18/19

Filter geotextile	all grades	Properties	Unit	all grades
Type of product	Mechanically bonded continuous-filament nonwoven	Cone drop test [EN ISO 13433]	mm	25
		Tensile strength MD / CD [EN ISO 10319]	kN/m	8 / 9
		CBR puncture resistance [EN ISO 12236]	N	1350
		Opening size O ₉₀ [EN ISO 12956]	µm	95
		Water permeability [EN ISO 11058, Δh = 50 mm]	l/m ² .s (mm/s)	110

Forms of supply	Unit	730-12	2030-12	540-12	740-12	1240-12	2040-12
Length [±2%]	m	40	20	20	40	25	20
Width [±3%]	m	2 4**	2 4**	2 4**	2 4**	2 4**	2 4**
Area	m ²	80 160	40 80	40 80	80 160	50 100	40 80
Unit	rolls/palette	4	4	9	4	4	4

*) Tolerance -20%

**) on request

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.

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