

## 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. Megadrain has an extremely high voids content offering a high in-plane flow capacity. Megadrain drainage mats are used for surface drainage applications, replacing conventional drainage gravel layers.



TenCate Polyfelt Megadrain

### Megadrain is a drainage mat with high in-plane water discharge capacity

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, Megadrain drainage mats are suitable for structures with low inclination where large quantities of water need to be drained off.

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.

### 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 HDPE 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:

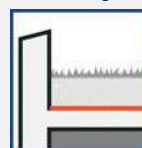
- Reduced excavation and construction costs
- Reduced costs for deposition of excavation material
- Easier quality control on the site
- High in-plane water flow rate



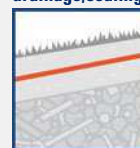
Low roll weight (left), secure overlap (right)

### Applications

#### Roof drainage



#### Landfill surface drainage/sealing



#### Wall and cellar drainage



#### Retaining wall drainage



## Megadrain - Drainage Mats - Technical Data

| Properties [Standard]           | Unit                                | 730-12  | 1230-12 | 2030-12 | 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) |         |         |  |         |         |      |
| <b>In-plane flow capacity</b>   |                                     |   |         |         |  |         |         |      |
| i = 1                           | 20 kPa                              | l/m.s   | 3.0     | 4.0     | 6.0  | 2.0     | 3.0     | 6.0  |
|                                 | 50 kPa                              | l/m.s   | 2.7     | 2.3     | 2.1  | 1.9     | 2.0     | 2.0  |
| i = 0,04                        | 20 kPa                              | l/m.s   | 0.55    | 0.75    | 1.20   | 0.40    | 0.55    | 1.10 |
|                                 | [EN ISO 12958 - soft / hard] 50 kPa | l/m.s   | 0.49    | 0.50    | 0.35   | 0.37    | 0.35    | 0.30 |
| Thickness [EN ISO 9863-1]       | 2 kPa                               | mm  | 8       | 16      | 20   | 8       | 15      | 20   |
| Tensile strength [EN ISO 10319] |                                     | kN/m  | 8       | 8       | 8  | 16      | 16      | 16   |

| Filter geotextile | all grades   | Properties                                  | Unit                       | all grades |
|-------------------|--|---|----------------------------|------------|
| Type of product   | Mechanically bonded<br>continuous-filament<br>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 <sub>90</sub> [EN ISO 12956] | µm                         | 95         |
|                   |  | Water permeability [EN ISO 11058, Δh=50mm]  | l/m <sup>2</sup> .s (mm/s) | 110        |

| Forms of supply | Unit           | 730-12 | 1230-12 | 2030-12 | 740-12 | 1240-12 | 2040-12 |
|-----------------|----------------|--------|---------|---------|--------|---------|---------|
| Length          | m              | 40     | 25      | 20      | 40     | 25      | 20      |
| Width           | m              | 2 4    | 2 4     | 2 4     | 2 4    | 2 4     | 2 4     |
| Area            | m <sup>2</sup> | 80 160 | 50 100  | 40 80   | 80 160 | 50 100  | 40 80   |

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  
A-4021 Linz, Austria  
Tel. +43 732 6983 0, Fax +43 732 6983 5353  
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** Tel. +33 1 34 23 53 63 service.fr@tencate.com  
**Germany** Tel. +49 6074 3751 50 service.de@tencate.com  
**Italy** Tel. +39 0362 34 58 11 service.it@tencate.com  
**Near Middle East** Tel. +971 5048 10557 service.nme@tencate.com

**Poland / CIS** Tel. +48 12 268 8375 service.pl@tencate.com  
**Romania** Tel. +40 21 322 06 08 service.ro@tencate.com  
**Scandinavia / Baltics** Tel. +45 4485 7474 service.dk@tencate.com  
**Spain / Portugal** Tel. +34 607 499 962 service.es@tencate.com  
**Switzerland** Tel. +41 44 318 6590 service.ch@tencate.com  
**UK / Ireland** Tel. +44 1952 588 066 service.uk@tencate.com



502 549 | 04.2010

Protective Fabrics  
Space Composites  
Aerospace Composites  
Advanced Armour

Geosynthetics  
Industrial Fabrics  
Grass