top drain plus

Produktdatenblatt Nr. 9208 - R - 02
Issue: August 2022

KRAITEC® top drain plus is a profiled, fleece-lined structural protection and drainage mat. It offers a high drainage effect through and underneath the mat. It provides protection against mechanical damage on high-quality sealing layers and insulation within the meaning of DIN 18531, 18533 and 18535. **KRAITEC® top drain plus** can be used on flat roof constructions (usable / open for traffic) and terraces. **KRAITEC® top drain plus** also provides an optimum protective function for gardening and landscaping.

Material

Material:

Rubber granulate on a recycling basis (typical rubber odour possible) bonded with polyurethane.

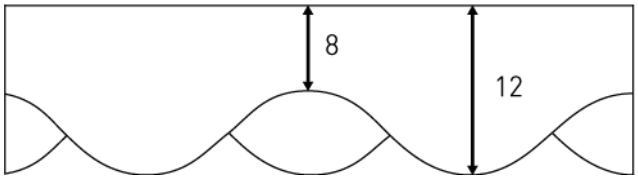
Product design

Colour:	black / colour-permeated
Surface:	Fleece lamination

Dimensions / Tolerances / Weight

Length (roll-form mats):	10.0 m ± 1.5 %
Width (roll-form mats):	1200 mm ± 1.5 %
Thickness (roll-form mats):	12/8 mm ± 1.0 mm

Profile:



Density:	approx. 700 – 800 kg/m³
Area weight:	approx. 8.5 kg/m²

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Product Testing

Tensile strength:	approx. 0.5 N/mm² (DIN EN ISO 1798)
Elongation at break:	approx. 40% (DIN EN ISO 1798)
Fire resistance:	Efl (DIN EN 13501-1)
Service temperature range:	-30° to 80°C
Chemical resistance:	conditionally resistant to acids and bases
Environmental resistance:	rot-proof and water-resistant
Compression under traffic load:	approx. 4 t/m² at 10% compression approx. 13 t/m² at 20% compression approx. 34 t/m² at 30% compression (based on DIN EN ISO 3386-2)
Water permeability:	given by open pores
Water storage capacity:	approx. 3,1 l/m²
Heat transfer coefficient:	approx. 10 x 10^–5 / °C (based on DIN EN 13471) i.e. 1 mm length change per 1000 mm at ΔT = 10 K
Expansion due to humidity:	min. 2% (depending on moisture content and installation situation)
Salt water resistance:	resistant in acc. w. (DIN EN ISO 175 and DIN EN ISO 3386-2)
Water drainage capacity:	

($q_{\text{stress/gradient + gravel bed}}$)

Testing direction: MD Hard/hard	Hydraulic gradient i=0.010	Hydraulic gradient i=0.020
2 kPa	0.14 l /(m·s)	0.23 l /(m·s)
15 kPa	0.10 l /(m·s)	0.15 l /(m·s)
30 kPa	0.08 l /(m·s)	0.13 l /(m·s)

(DIN EN ISO 12958* 08.2010)

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($q_{stress/gradient}$)

Testing direction: MD Hard/hard	Hydraulic gradient i=0.010	Hydraulic gradient i=0.020
1.275 kPa	0.0625 l /(m·s)	0.106 l /(m·s)
15 kPa	0.0173 l /(m·s)	0.0336 l /(m·s)
30 kPa	0.0044 l /(m·s)	0.0094 l /(m·s)

(DIN EN ISO 12958* 08.2010)

Water permeability:

	Water permeability coefficient k_v, const. at 20°C	Permittivity at 20°C
2 kPa	0.0021 m/s	0.14 1/s
15 kPa	0.0020 m/s	0.14 1/s
30 kPa	0.0018 m/s	0.13 1/s

(DIN 60500-4)

Installation

Laying takes place in accordance with the **KRAITEC® top drain plus** laying instructions.

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Other

Other:	Compatibility: Due to the large number of commercially available waterproofing membranes with different formulations, the compatibility (e.g. with plasticizers or blocking) must be approved by the manufacturer of the waterproofing membrane.
Disclaimer:	We want to use this information to advise you to the best of our knowledge and belief on the basis of our tests and experience. However, KRAIBURG Relastec GmbH & Co. KG cannot provide a guarantee for KRAITEC® products for the laying results in individual cases due to the wide range of application possibilities and the storage, laying and construction site conditions, which are outside our influence. You should carry out your own tests. Our technical service would be pleased to assist you.

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