Deckdrain 5000S/NW20XUV

creative geosynthetic engineering

DECKDRAIN 5000S/NW20XUV is a geocomposite drainage layer comprising a medium weight geotextile filter, thermally bonded on one side of a single cuspated HDPE (High Density Polyethylene) core. The textile filter has a flap extending beyond the core on one edge. The product is practically impermeable one side.

Data Sheet

Geocomposite Properties						
Thickness at 2kPa	(mm)	52			±10%	EN ISO 9863-1
Mass per unit area	(g/m²)	2 300			approx	EN ISO 9864
Tensile strength MD / CMD	(kN/m)	28 / 28			-10%	EN ISO 10319
Elongation at peak MD / CMD	(%)	25 / 25			nominal	EN ISO 10319
CBR puncture resistance	(N)	4 800			-20%	EN ISO 12236
Perpendicular Water Inflow	(dimple side only)					
Water flow at 50mm head	(l/m²·s)	72			±30%	EN ISO 11058
At 2kPa permeability *(coefficient)*	(m/s)	2.8×10^{-3}			±30%	EN ISO 11058
Breakthrough head	(mm)	0			nominal	
In-plane water flow MD and CMD		HG = 1.0		HG = 0.1		Hydraulic gradient
at 20kPa confining pressure	(l/m·s)	95	estimated	29	estimated	
at 50kPa confining pressure	(l/m·s)	90	estimated	27.5	estimated	
estimated water flow values based on computational fluid dynamics modelling, see Note 5						
Resistance to weathering		The geotextile has high UV stabilisation which may allow exposure up to 12 months depending on location				EN 12224
Resistance to chemicals		Excellent				EN 14030
Design life		120 years (manufacturer's declaration)				
Geotextile Properties						
Thickness at 2kPa	(mm)	1.75			±20%	EN ISO 9863-1
Tensile strength MD/CMD	(kN/m)	20 / 20			-13%	EN ISO 10319
Pore size O_{90}	(µm)	70			±30%	EN ISO 12956
CBR puncture resistance	(N)	3 400			-20%	EN ISO 12236
Dynamic perforation cone drop	(mm)	17			+20%	EN ISO 13433
Type and material	Non-woven needle-punched and heat-treated long staple fibre polypropylene					
Product Dimensions						
Standard roll dimensions	0.915 m x 25 m. Other sizes on request.					

Notes

1. The values given are indicative and correspond to nominal results obtained in our laboratories and testing institutes. In line with our policy of continuous improvement the right is reserved to make changes without notice at any time.
2. The tolerance on roll length is ±1.5% and on roll width is ±1.0%.
3. Guidance on interface shear strength, creep and certain other parameters is available. Site specific tests are strongly recommended.
4. Final determination of the suitability of any information is the sole responsibility of the user. ABG will be pleased to discuss the use of this or any other product but responsibility for selection of a material and its application in any specific project remains with the user.
5. DECKDRAIN 5000S is a product primarily developed for the gas venting market and as such has not been tested in accordance with water flow codes. The estimated water flow values given are based on CFD simulation.

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0799-CPR-30

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