

LEAKDRAIN S5U Hyper leakage detection layer comprises a single cusped HDPE (High Density Polyethylene) very high strength high performance core. The core has the necessary compressive strength and in-plane flow capacity required to conduct leachate and other particle laden liquids without clogging. The core design has flat surfaces to provide protection and minimal stresses on the surrounding surfaces. Its main application is as a leak detection layer between two geomembranes at the base of containment systems.

Leakdrain Properties and Performance

Colour	Black				
Type and material	Single cusped (dimpled) HDPE (high density polyethylene)				
Dimple centres	(mm)	8			nominal
Surface contact – top	(%)	6.5			nominal
Surface contact - bottom	(%)	70			nominal
Drainage void volume	(l/m ²)	3.3			nominal
Mass per unit area	(g/m ²)	1 200			±10% EN ISO 9864
Overall thickness at 2kPa	(mm)	5.4			±10% EN ISO 9863-1
Tensile strength MD / CMD	(kN/m)	14.5 / 12.5			-10% EN ISO 10319
Elongation at peak MD / CMD	(%)	60 / 40			nominal EN ISO 10319
CBR puncture resistance	(N)	1 700			-20% EN ISO 12236
High Pressure OIT	(minutes)	> 600			ASTM D5885
In-plane water flow MD and CMD		HG = 1.0	HG = 0.1	Hydraulic gradient	
at 20kPa confining pressure	(l/m·s)	1.78	±0.50	0.53	±0.15 EN ISO 12958
at 100kPa confining pressure	(l/m·s)	1.68	±0.50	0.49	±0.15 EN ISO 12958
at 200kPa confining pressure	(l/m·s)	1.56	±0.50	0.45	±0.15 EN ISO 12958
at 500kPa confining pressure ⁽⁵⁾	(l/m·s)	1.35	±0.50	0.34	±0.15
at 1000kPa confining pressure ⁽⁵⁾	(l/m·s)	1.00	±0.50	0.30	±0.15
with hard platen boundary conditions to simulate installation between geomembranes					
Resistance to weathering (UV)	Excellent				EN 12224
Resistance to chemicals	Excellent				EN 14030
Design life	120 years (manufacturer's declaration)				

Product Dimensions

Standard roll dimensions	2.2 x 60 m. Overlap allowance 2%.
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Notes

1. The values given are indicative and correspond to 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. Flow values at pressures in excess of 200kPa are outside the normal scope of EN ISO 12958.