

DATA SHEET: BLACKDOWN 20MM DRAINAGE LAYER

PRODUCT CODES: 20DWR 920

20DWR 920 consists of a perforated cusped HDPE (High Density Polyethylene) core with selected geotextiles thermally bonded on each side. It is primarily intended for use under thin soil layers where the plant roots can reach down to the water in the core reservoirs. The core is perforated to allow the excess rainwater to flow into the underside and away through the 20DWR 920 to the outlets. The upper textile is optimised for drainage performance and the lower textile protects the waterproofing system. It is a major application is in extensive roof garden drainage where 20DWR 920 provides a lightweight drainage layer and water reservoir to sustain plant growth.

20DWR 920 makes extensive use of recycled polymers in its construction.

Geotextiles

Type	Flat face	Dimple face	
Material	Heat treated non-woven Polypropylene	Non-woven felt Mixed pp & other recycled polymers	
Mass/Unit Area	(g/m ²) 120	300	EN ISO 9864
Breakthrough head	(mm) 0	Not determined	BS 6906 (3)
Pore size O ₉₀	(um) 115	Not determined	EN ISO 12956
CBR puncture resistance	(N) 1 600	1 500	EN ISO 12236

Drainage layer

Hydraulic gradient		10%	3%	1%	
In-plane water flow at 20kPa	(l/m.sec)	3.95	1.88	0.85	EN ISO 12958
Water flow normal to the plane	(l/m ² .sec)	2.5			
Thickness at 2kPa	(mm)	27			EN ISO9863-1
Tensile strength (MD/CD)	(kN/m)	24 / 22			EN ISO 10319
Elongation (MD/CD)	(%)	40 / 65			EN ISO 10319
Water reservoir volume ⁽⁷⁾	(l/m ²)	5.5			
Mass/unit area(dry)	(g/m ²)	1 720			EN ISO 9864
Mass/unit area (saturated)	(g/m ²)	7 500		(indicative)	EN ISO9864
Compressive Strength (unfilled)	(kPa)	150			
Life expectancy	(yrs)	120 years in pH 4 to 9 at 25°C			
Chemical resistance		Excellent resistance to common chemicals			EN 14030
Resistance to microbes		No significant effect			EN 12225
Waterproofing		Fully compatible. All components compatible with potable water.			
Compatibility					
Health, safety, environment		INERT. No known health hazard. No precautions necessary.			

Note

- (1) The values given are indicative and correspond to nominal results obtained in our laboratories and testing institutes. The above figures have been obtained from statistical interpretation of test results. 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) Non-load bearing walls can be built off 20DWR 920.
- (4) The hydraulic performance of the dimple face textile does not influence overall product performance.
- (5) Final determination of the suitability of any information is the sole responsibility of the user. BHC will be pleased to discuss the use of this or any other product but responsibility for selection of material and its application in any specific project remains with the user.

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Blackdown Greenroofs

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