

**DATA SHEET: BLACKDOWN 40MM DRAINAGE LAYER, FILTER & PROTECTION FLEECE**  
**PRODUCT CODES: 40DWR 920**

40DWR 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 40DWR 920 to the outlets. The upper textile is optimised for drainage performance and the lower textile protects the waterproofing system. It's major application is in semi-intensive or intensive roof garden drainage where 40DWR 920 provides a lightweight drainage layer and water reservoir to sustain plant growth.

40DWR 920 makes extensive use of recycled polymers in its construction.

**Geotextiles**

Type	Flat face	Dimple face	
	Heat treated non-woven	Non-woven felt	
Material	Polypropylene	Mixed pp & other recycled polymers	
Mass/Unit Area	(g/m <sup>2</sup> )	250	300 <sup>(3)</sup> EN ISO 9864
Breakthrough head	(mm)	0	Not determined <sup>(3,6)</sup> BS 6906 (3)
Pore Size O <sub>90</sub>	(µm)	70	Not determined <sup>(3,6)</sup> EN ISO 12956
Static Puncture	(N)	3400	1500 <sup>(3)</sup> EN ISO 12236
Chemical Resistance	Highly resistant to all common chemicals		

**Drainage layer**

Hydraulic gradient		10%	3%	1%	
In-plane water flow at 20kPa	(l/m.sec)	10.1	4.5	2.0	EN ISO 12958
Based on structural boundary conditions as simulated by <b>HARD platen</b> testing					
Water flow normal to the plane	(l/m <sup>2</sup> .sec)	1.4			
Thickness at 2kPa	(mm)	46.9			(nominal) EN ISO9863-1
Tensile strength	(kN/m)	54 / 40			EN ISO 10319
Elongation	(%)	50 / 50			EN ISO 10319
Water reservoir volume <sup>(7)</sup>	(l/m <sup>2</sup> )	14			
Mass/unit area(dry)	(g/m <sup>2</sup> )	2 550			EN ISO 9864
Mass/unit area (saturated)	(g/m <sup>2</sup> )	16 550			(indicative) EN ISO9864
Life expectancy	(yrs)	120 years in pH 4 to 9 at 25°C			
Resistance to weathering		The geotextile has high uv stabilisation			
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.			

**Product Dimensions**

Standard roll dimensions 0.92 x 20 m

**Note**

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- (1) The geotextile is bonded to the core to prevent intrusion into and blockage of the drainage passage under the action of pressure of fill material. The textile is root-permeable; if a root barrier is required alternative textiles can be substituted or an additional layer of ROOTEX should be laid.
- (2) 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.
- (3) The tolerance on roll length is 1.5% and on roll width is 1.0%
- (4) The above figures have been obtained from statistical interpretation of test results
- (5) Non-load bearing walls can be built off 40DWR 920.
- (6) The hydraulic performance of the lower face textile does not influence overall product performance.
- (7) Final determination of the suitability of any information is the sole responsibility of the user.

Blackdown Greenroof 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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