DATA SHEET: BLACKDOWN 40MM DRAINAGE LAYER & FILTER SHEET
PRODUCT CODE: 40+FS

40+FS consists of a perforated cuspated HDPE (High Density Polythylene) core with selected geotextile thermally bonded on the upper flat 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 40+FS to the outlets. The textile is optimised for drainage performance. It's major application is in semi-intensive or intensive roof garden drainage where 40+FS provides a lightweight drainage layer and water reservoir to sustain plant growth.

40+FS makes extensive use of recycled polymers in its construction.

Geotextiles

Type		Flat face Heat treated non-woven	
Material		Polypropylene	
Mass/Unit Area	($g/m^{2)}$	250	EN ISO 9864
Breakthrough head	(mm)	0	BS 6906 (3)
Pore Size O_{90}	(µm)	70	EN ISO 12956
Static Puncture	(N)	3400	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 **HARD platen** testing						
Water flow normal to the plane	(l/m^2.sec)	1.4				
Thickness at 2kPa	(mm)	43			*(nominal)*	EN ISO9863-1
Tensile strength	(kN/m)	37 / 34				EN ISO 10319
Elongation	(%)	50 / 50				EN ISO 10319
Water reservoir volume(7)	(l/m^2)	14				
Mass/unit area(dry)	(g/m^2)	2 200				EN ISO 9864
Mass/unit area (saturated)	(g/m^2)	16 200			*(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				EN 12224
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

(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

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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. 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.

(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 40+FS.

(6) 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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