

**DATA SHEET: BLACKDOWN 25MM DRAINAGE LAYER & FILTER FLEECE**  
**PRODUCT CODES: 25+FS**

25+FS consists of a perforated cusped HDPE (High Density Polyethylene) core with selected geotextiles thermally bonded on the flat upper 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 25+FS to the outlets. The upper textile is optimised for drainage performance. It is a major application is in extensive roof garden drainage where 25+FS provides a lightweight drainage layer and water reservoir to sustain plant growth.

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

**Geotextiles**

Type		Upper Non-woven needle punched & heat treated long staple fibre.	
Material		Polypropylene	
Mass/Unit Area	(g/m <sup>2</sup> )	120	EN ISO 9864
Thickness at 2kPa	(mm)	1.2	EN ISO9863-1
Breakthrough head	(mm)	0	BS 6906 (3)

**Drainage layer**

Hydraulic gradient		10%	3%	1%	
In-plane water flow at 20kPa	(l/m.sec)	4.5	2.1	1.25	EN ISO 12958
Water flow normal to the plane	(l/m <sup>2</sup> .sec)	8.0			EN ISO 11058
Thickness at 2kPa	(mm)	26.2			EN ISO9863-1
Tensile strength (MD/CD)	(kN/m)	20 / 10			EN ISO 10319
Elongation (MD/CD)	(%)	50 / 35			EN ISO 10319
Water reservoir volume <sup>(7)</sup>	(l/m <sup>2</sup> )	4.3			
Mass/unit area(dry)	(g/m <sup>2</sup> )	1 670			EN ISO 9864
Mass/unit area (saturated)	(g/m <sup>2</sup> )	6 000		<i>(indicative)</i>	EN ISO9864
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 25+FS.
- (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.

Last updated May 2014