

DATA SHEET: BLACKDOWN 20MM DRAINAGE LAYER

PRODUCT CODES: 20+FS

20+FS consists of a perforated cusped HDPE (High Density Polyethylene) core with a selected geotextile thermally bonded 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 20+FS 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 20+FS provides a lightweight drainage layer and water reservoir to sustain plant growth.

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

Geotextile

		Upper side			
Type		Heat treated non-woven			
Material		Polypropylene			
Mass/Unit Area	(g/m ²)	120			EN ISO 9864
Breakthrough head	(mm)	0			BS 6906 (3)
Pore size D ₉₀	(um)	120			EN ISO 12956
CBR puncture resistance	(N)	1 600			EN ISO 12236

Drainage layer

Hydraulic gradient		10%	3%	1%	
In-plane water flow at 20kPa	(l/m.sec)	4.5	2.10	1.25	EN ISO 12958
Water flow normal to the plane	(l/m ² .sec)	2.5			
Thickness at 2kPa	(mm)	26.2			EN ISO9863-1
Tensile strength (MD/CD)	(kN/m)	19 / 19			EN ISO 10319
Elongation (MD/CD)	(%)	45 / 45			EN ISO 10319
Water reservoir volume ⁽⁷⁾	(l/m ²)	4.3			
Mass/unit area(dry)	(g/m ²)	1 670			EN ISO 9864
Mass/unit area (saturated)	(g/m ²)	5 970		(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. 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.

Blackdown Greenroofs

Address: Street Ash Nursery, Lisieux Way, Combe St Nicholas, Chard, St Nicholas, Chard, Somerset TA20 3HZ

Tel: 01460 234 582 **Email:** enquiries@blackdown.co.uk **Web:** www.blackdown.co.uk

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4. Final determination of the suitability of any information is the sole responsibility of the user. Blackdown 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. Non-load bearing walls can be built off 20+FS.
6. Please refer to separate sheets for fixing instructions. A COSHH certificate is available on request.

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