



# Technical Data Sheet

November 2011

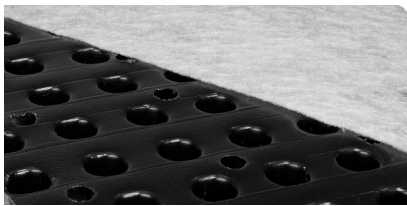
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## HYDRODRAIN



**HYDRODRAIN 12**



**HYDRODRAIN 20**



**HYDRODRAIN 40**

**Description:**

Axter **HYDRODRAIN** consists of a perforated cusped HDPE (High Density Polyethylene) core with a geotextile filter thermally bonded\* on the upper side. It is primarily intended for use under 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 to the outlets (available from Axter Ltd). Its major application is in extensive roof garden drainage where **HYDRODRAIN** provides a lightweight drainage layer and water reservoir to sustain plant growth.

For efficient storage and handling, the product is normally rolled “dimples inward” and will usually require to be turned over during installation.

**Geotextile:**

		HYDRODRAIN 12	HYDRODRAIN 20	HYDRODRAIN 40	
Type**		Non woven long staple fibre needle punched & heat treated			
Material		Polypropylene			
Mass/unit area	g/m <sup>2</sup>	120	125	250	EN ISO 9864
Water flow at 50mm head	l/m <sup>2</sup> .sec	94.5	105	80	EN ISO 11058
Breakthrough head	mm	0	0	0	BS 6906 (3)
Pore size O <sub>90</sub>	µm	115	115	70	EN ISO 12956
Static puncture resist (CBR)	N	1600	1600	3400	EN ISO 12236
Dynamic perf cone drop	mm	32			EN ISO 13433
Chemical resistance		Highly resistant to all common chemicals			

## Composite:

		HYDRODRAIN 12			HYDRODRAIN 20			HYDRODRAIN 40			
Hydraulic gradient	%	10	3	1	10	3	1	10	3	1	
In-plane water flow at 20 kPa	l/m.sec	1.60	0.80	0.55	3.95	1.88	0.85	10.1	4.5	2.0	EN ISO 12958
Water flow normal to the plane	l/m <sup>2</sup> .sec							1.4 at 50mm head			
Thickness at 2 kPa	mm	13.2			21.0			42.0 (nominal)			EN ISO 9863-1
Tensile strength (MD/CD)	kN/m	27/19			22			32/29			EN ISO 10319
Elongation at peak (MD/CD)	%	45/40			40			35/30			EN ISO 10319
CBR puncture resistance	N	3700 (indicative)			3000 (indicative)			4000 (indicative)			EN ISO 12236
Water reservoir volume	l/m <sup>2</sup>	1.5			5.5			14			
Weight (dry)	g/m <sup>2</sup>	1140			1370			2200			EN ISO 9864
Weight (saturated)	g/m <sup>2</sup>	2650 indicative			7000 indicative			16200 indicative			EN ISO 9864
Life expectancy		120 years in pH 4 to 9 at 25°C									
Chemical resistance		Excellent resistance to common chemicals									EN 14030
Compressive strength***	kPa	250			150			150			
Roll dimensions	m	1.1 x 50			0.92 x 50			0.92 x 20			

### NOTES

**Hydrodrain** is fully compatible with all **Axter** waterproofing membranes; if a root barrier is required **Axter Limited** offers a range of anti-root treated waterproofing membranes.

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.

Unless otherwise stated, allowable tolerances are  $\pm 10\%$  of the typical value.

Final determination of the suitability of any information is the sole responsibility of the user. **Axter Limited** 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 end user.

\* 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.

\*\*The geotextile is also UV stabilised for **Hydrodrain 40**.

\*\*\* Non-load bearing walls can be built off **Hydrodrain**.