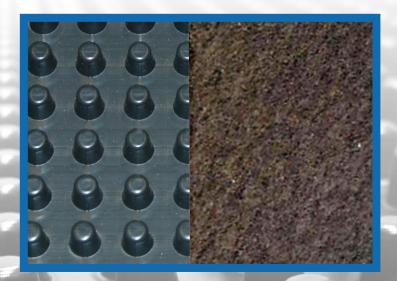


J.DRAIN

Engineered Drainage Systems



APPLICATIONS

RETAINING WALLS
LAGGING WALLS
FOUNDATION WALLS
BRIDGE ABUTMENTS

J-DRAIN[®] ES 1500 Series Meets AASHTO M 288 Requirements

J-DRAIN ES 1500

For over 30 years, **J-DRAIN** drainage composites have been successfully installed to relieve hydrostatic pressure in building construction, civil engineering, environmental and landscape applications. Eliminating the costly and time-consuming installation of drainage aggregate, **J-DRAIN** drainage composites provide a more efficient, cost effective way to provide sub-surface drainage. The **ES 1500** series of prefabricated drainage composites are engineered to provide superior performance to meet specific project conditions. The multi-directional flow design allows for a continuous path for water discharge. **ES 1500** is lightweight, easy to install and has drainage flow capacities that are 3-5 times that of traditional aggregate systems.

The **ES 1500's** three dimensional dimpled core is formed from a chemical resistant polypropylene polymer. By extruding each dimple to exact performance standards, the high compressive strength of the core withstands installation and insitu earth stresses. The geotextile filter fabric is fused to the dimpled core for superior peel resistance and structural integrity. The integrated core and fabric system optimizes drainage channel consistency, minimizing soil particle intrusion for maximum flow capacity, allowing water to freely enter the drainage channel. The **ES 1500** series is engineered for high flow requirements with heavy soil pressure conditions in vertical and horizontal applications, available with nonwoven or woven filter fabrics meeting AASHTO M288-06 specifications for survivability.

info@j-drain.com www.j-drain.com



292 S. Main St., Suite 200 Alpharetta, GA 30009 (800) 843-7569 (770) 442-1461 Fax: (770) 664-7951



Physical Properties

						•		
Property	Test Method	UOM	ES 1530 ES 1530 B	ES 1540	ES 1560	ES 1580	ES 1560 W	ES 1540 T
FABRIC								
Material			Non woven PP	Non woven PP	Non woven PP	Non woven PP	Woven PP	Spunbond PP
AASHTO M 288	Survivability		-	Class 3	Class 2	Class 1	Class 3	Class 3
Grab Tensile Strength	ASTM D 4632	lbs	80	120	160	205	365 x 200	145
		N	356	534	712	912	1624 x 890	644
Apparent Opening Size	ASTM D 4751	U.S. Sieve	70	70	70	80	40	60
		mm	0.212	0.212	0.212	0.18	0.425	0.25
Flow Rate	ASTM D 4491	gal/min/ft ²	160	135	110	95	145	60
		l/min/m²	6519	5500	4481	3870	5907	2460
Puncture Strength	ASTM D 6241	lbs	210	310	410	500	675	276
		N	934	1380	1825	2224	3004	1228
Permittivity	ASTM D 4491	sec ⁻¹	2.2	1.7	1.5	1.4	2.1	0.8
Grab Tensile Elongation	ASTM D 4632	%	50	50	50	50	24MD x 10CD	50
UV Resistance	ASTM D 4355	% (@ 500 hrs)	70	70	80	70	90	80
CORE								
Thickness	ASTM D 1777	inch	0.4	0.4	0.4	0.4	0.4	0.4
		mm	10.16	10.16	10.16	10.16	10.16	10.16
Compression	ASTM D 1621	psf	15,000	15,000	15,000	15,000	15,000	15,000
		kNm ²	718	718	718	718	718	718
Flow Rate Hydraulic Gradient = 1 @3,600 psf	ASTM D 4716	gal/min/ft	21	21	21	21	21	21
		I/min/m	261	261	261	261	261	261

ES 1530B is identical to ES 1530 with the addition of a protection sheet bonded to the back side of the sheet available in 4' widths only.

The information contained herein is believed by JDR Enterprises, Inc. to be accurate and is offered solely for the customer's consideration, investigation and ve Warratty, & Disclaimer along with Standard Terms & Conditions apply. See www.j-drain.com for more info. <u>Limitations</u>: J-DRain Freststant to chemicals in nor should be contacted for further information to determine the suitability of use of J-DRain in unusual soil environments. J-DRain should be limited to its ex <u>Disclaimer</u>: All information, drawings and specifications are based on the latest published information at the time of printing. JDR reserves the right to make cha average roll values (MARV). Standard variations of 10% in mechanical properties and 15% in hydraulic properties are normal.

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