



J•DRAIN[®]

Prefabricated Drainage Systems



APPLICATIONS

RETAINING WALLS

LAGGING WALLS

FOUNDATION WALLS

BRIDGE ABUTMENTS

J•DRAIN[®] ES 520 Series

Meets AASHTO M 288 Requirements

J•DRAIN ES 520

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 520** 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 520** is lightweight, easy to install and has drainage flow capacities that are 3-5 times that of traditional aggregate systems.

The **ES 520'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 in-situ 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 520** series is engineered for moderate flow requirements with heavy soil pressure conditions in vertical applications, available with nonwoven or woven geotextile filter fabrics meeting AASHTO M288-06 specifications for survivability.

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ES 520 Series

Physical Properties

Property	Test Method	UOM	ES 523	ES 522 T	ES 524T
FABRIC					
Material			Non woven PP	Non woven PP	Spunbond PP
AASHTO M 288	Survivability		-	-	Class 3
Grab Tensile Strength	ASTM D 4632	lbs	100	60	145
		N	445	267	644
Apparent Opening Size	ASTM D 4751	U.S. Sieve	70	30	60
		mm	0.212	0.595	0.25
Flow Rate	ASTM D 4491	gal/min/ft ²	140	157	60
		l/min/m ²	5704	6397	2460
Puncture Strength	ASTM D 6241	lbs	250	108	276
		N	1113	480	1228
Permittivity	ASTM D 4491	sec ⁻¹	2.0	2.1	0.8
Grab Tensile Elongation	ASTM D 4632	%	50	50	50
UV Resistance	ASTM D 4355	% (@ 500 hrs)	70	50	80
CORE					
Thickness	ASTM D 1777	inch	0.31	0.31	0.31
		mm	7.87	7.87	7.87
Compression	ASTM D 1621	psf	5,200	5,200	5,200
		kNm ²	249	249	249
Flow Rate Hydraulic Gradient = 1 @3,600 psf	ASTM D 4716	gal/min/ft	12.4	12.4	12.4
		l/min/m	154	154	154
Roll Size: 4, 6, or 8 foot width x 50 foot length. Specialty roll widths and fabrics require additional lead time and minimum quantity orders.					

The information contained herein is believed by JDR Enterprises, Inc. to be accurate and is offered solely for the customer's consideration, investigation and verification. Determination of suitability for use is the responsibility of the user. JDR's Limitations, Limited Warranty, & Disclaimer along with Standard Terms & Conditions apply. See www.j-drain.com for more info. **Limitations:** J-DRain is resistant to chemicals in normal soil environments. However, some reagents may affect the performance of J-DRain. A JDR representative 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 exposure to ultra-violet sunlight. J-DRain should be backfilled or covered within seven days of installation. **Disclaimer:** All information, drawings and specifications are based on the latest published information at the time of printing. JDR reserves the right to make changes due to manufacturing improvements and engineering at any time. All physical properties are minimum average roll values (MARV). Standard variations of 10% in mechanical properties and 15% in hydraulic properties are normal.

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