

**Engineered Drainage Systems** 



## **DUAL SIDED STRIP DRAIN**

**APPLICATIONS** 

TRENCH DRAINS

INTERCEPTOR DRAINS

**HIGHWAY EDGE DRAINS** 

**GAS VENTING** 

# J-DRAIN<sup>®</sup> ESD Series

**ENGINEERED STRIP DRAIN** 

**Meets AASHTO M 288 Requirements** 

## J-DRAIN ESD I / J-DRAIN ESD II / J-DRAIN ESD III

For over 30 years, **J-DRAIN** drainage composites have been successfully installed to provide drainage in building construction, civil engineering, DOT, 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 **ESD** 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. **ESD** is lightweight, easy to install and has drainage flow capacities that are 3-5 times that of traditional aggregate systems.

The **ESD** consists of a heavy duty polypropylene sheet cuspated under heat and pressure to form a 3-dimensional, high flow, dimpled drainage core. The core is then wrapped and bonded with a non-woven filter fabric meeting AASHTO M288-06 specifications for survivability. The filter fabric retains soil or sand particles as well as freshly placed concrete or grout, allowing filtered water to pass into the drainage core. Soil backfill is retained while allowing water to pass into the drainage system providing hydrostatic relief. Collected water is then conveyed to a collection system. The drainage core is chemically resistant and designed for applications where chemical exposure is possible. The 1 inch (25 mm) profile design allows for higher venting and flow rates.

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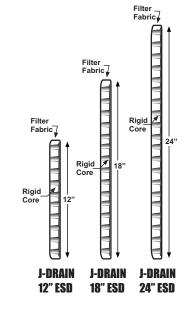


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## **Physical Properties**

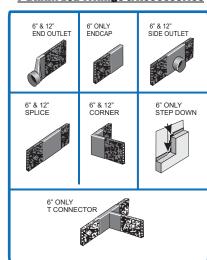
Property	Test Method	UOM	ESD III	ESD II	ESD I
FABRIC					
Material			Non woven PP	Non woven PP	Non woven PP
AASHTO M 288	Survivability		Class 3	Class 2	Class 1
Grab Tensile Strength	ASTM D 4632	lbs	120	160	205
		N	534	712	912
Apparent Opening Size	ASTM D 4751	U.S. Sieve	70	70	80
		mm	0.212	0.212	0.18
Flow Rate	ASTM D 4491	gal/min/ft <sup>2</sup>	135	110	95
		I/min/m <sup>2</sup>	5500	4481	3870
CBR Puncture Strength	ASTM D 6241	lbs	310	410	500
		N	1380	1825	2224
Permittivity	ASTM D 4491	sec <sup>-1</sup>	1.7	1.5	1.4
Grab Tensile Elongation	ASTM D 4632	%	50	50	50
UV Resistance	ASTM D 4355	% (@ 500 hrs)	70	70	70
CORE					
Thickness	ASTM D 1777	inch	1	1	1
		cm	2.54	2.54	2.54
Compression	ASTM D 1621	psf	9,500	9,500	9,500
		kNm <sup>2</sup>	455	455	455
Flow Rate Hydraulic Gradient = 1 @3,600 psf	ASTM D 4716	gal/min/ft	30	30	30
		l/min/m	372	372	372







### **J-DRAIN ESD Fittings & Accessories**





Roll Weight: 38, 68, 83, 98, & 128 lbs. (17, 30, 37, 44, & 57 kgs.) (15, 30, 38, 45, & 60 cm.) Roll Width: 6", 12", 18", 24", & 36" (50.29 / 91.44 meters) 165 ft. / 300 ft. Roll Length:

Roll Size: 6, 12, 18, 24 & 36 inch width x 165 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 Limitiations, Limited Warranty, & Disclaimer along with Standard Terms & Conditions apply. See www.j-drain.com for more info. <u>Limitations</u>: 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. <u>Disclaimers</u>: All information, drawings and specifications are based on the latest published information at 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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