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MEL-DRAIN™ Rolled Matrix Drainage System

DESCRIPTION

MEL-DRAIN drainage products combine geotextile filter fabrics with specially designed drainage cores. This geocomposite allows the passage of moisture through the fabric while preventing fine soils from entering the drainage channel. Various drain designs are available, depending on compressive strength and flow rate requirements. (An optional polyester backing film is available when used in conjunction with flexible waterproofing material.) The family of MEL-DRAIN products provides excellent protection and drainage performance for vertical, horizontal, or site drainage applications.

USES

Used in conjunction with a total W. R. MEADOWS moisture protection system, MEL-DRAIN is the ideal choice for enhanced waterproofing protection of basement walls, plaza decks, earth-sheltered homes, commercial buildings, retaining walls, underground parking, site drainage, etc.

FEATURES/BENEFITS

- High flow capacity, without clogging/Relieves hydrostatic pressure buildup.
- High compressive strength/Dependable, long life performance.
- Easy to install; durable under jobsite conditions/Lower total installed cost.
- Chemically resistant to all naturally occurring soil conditions/Wide variety of applications.
- Provides protection for waterproofing materials/Enhances waterproofing performance.
- Part of a complete W. R. MEADOWS moisture protection system/Worry-free, single-source solution.

INSTALLATION

For vertical, below-grade applications, unroll MEL-DRAIN with flat, core side against the wall or waterproofing material. POINTING MASTIC or MEL-PRIME™ from W. R. MEADOWS are excellent adhesives compatible with this installation. The flat side core lip is overlapped to provide a continuous drainage layer. Extra filter fabric is provided at the edges for overlapping with the next sheet. MEL-DRAIN is easily cut with construction knives or scissors.

For horizontal applications, unroll and overlap so that water runs with overlap. Add appropriate ballast as needed to hold down drainage board.

PRECAUTIONS

Store materials in protected environment until time of installation. Materials not shipped in UV-resistant bags must be stored indoors or under separate UV-protective cover to protect materials from exposure to direct sunlight. UV-resistant bagged materials may be stored in outdoor UV-exposed environments for a cumulative maximum of 180 days. Limit unpackaged material UV exposure to a cumulative maximum of 14 days during installation. Do not install materials during high wind events. Do not expose materials to chemicals that are strong acids, strong bases, or high in solvents content. Protect materials from site construction damage, flames, and other environmental conditions that may damage the materials. It is not recommended that installation take place when the ambient temperature is below 20° F (-6.6° C) or above 100° F (37.8° C). Do not install in applications where the long term operational temperature is expected to be below -20° F (-18.9° C) or above 150° F (65.6° C).

CONTINUED ON REVERSE SIDE ...

TECHNICAL DATA

MEL-DRAIN PRODUCTS			5012	5035	7555	7955	9055	9072
			5012-B	5035-B	7555-B	7955-B	9055-B	9072-B
Physical Properties ¹	ASTM Test Method	Unit of Measure						
FABRIC								
Material ²			PP, NPNW	PP, NPNW	PP, WM	PP, WM	PP, NPNW	PP, NPNW
Water Flow Rate	D 4491	gpm/ft ²	165	165	160	145	90	90
		Lpm/m ²	6,724	6,724	6,520	5,907	3,668	3,668
Grab Tensile Strength	D 4632	lbs	100	100	385x220	365 x 200	205	205
		N	445	445	1,713x979	1624 x 890	912	912
CBR Puncture	D 6241	lbs	275	275	725	675	600	600
		kN	1.22	1.22	3.22	3.00	2.66	2.66
Apparent Opening Size	D 4751	sieve	70	70	45	40	80	80
		mm	0.210	0.210	0.350	0.43	0.177	0.177
CORE								
Material ²			HIPS	HIPS	HIPS	PP	HIPS	HIPS
Thickness	D 1777	in	0.25	0.44	0.44	0.40	0.44	0.25
		mm	6.35	11	11	10	11	6.35
Compressive Strength	D 1621	psf	11,000	15,000	18,000	18,000	18,000	30,000
		kPa	527	718	862	862	862	1,436
Flow Rate ³	D 4716	gpm/ft	12.5	17	21	21	21	13
		Lpm/m	155	211	261	261	261	161
COMPOSITE								
Recycled Content ⁴		%	70	75	74	70	65	65
Roll Size		ft	4x50	4x50	4x50	6x50	4x50	4x50
Roll Weight		lbs	28, 29-B	38, 39-B	47	73, 74-B	53, 50-B	49, 50-B

¹ Unless otherwise noted, all physical and performance properties listed are Typical Values as defined in ASTM D 4439.

² PP = Polypropylene; HIPS = High Impact Polystyrene; NPNW = Needle-Punched Nonwoven; WM = Woven Monofilament

³ In-plane flow rate measured at 3,600 psf (172 kPa) compressive load and a hydraulic gradient of 1.0.

⁴ Post-industrial recycled content by weight.

"-B" products include a polymeric backing film.

W. R. MEADOWS offers MEL-DRAIN products with AASHTO Classified Geotextiles. All technical information contained in this document is accurate as of time of publishing. W. R. MEADOWS reserves the right to make changes to products and literature without notice. For more detailed information, please request specific MEL-DRAIN model

LEED INFORMATION

May help contribute to LEED credits:

- EA p2: Minimum Energy Performance
- EA c2: Optimize Energy Performance
- MR c9: Construction and Demolition Waste Management

For most recent data sheet, further LEED information, and SDS, visit www.wrmeadows.com.



LIMITED WARRANTY

W. R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. Read complete warranty. Copy furnished upon request.

Disclaimer

The information contained herein is included for illustrative purposes only, and to the best of our knowledge, is accurate and reliable. W. R. MEADOWS, INC. cannot however under any circumstances make any guarantee of results or assume any obligation or liability in connection with the use of this information. As W. R. MEADOWS, INC. has no control over the use to which others may put its product, it is recommended that the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine the suitability of products for specific application and assume all responsibilities in connection therewith.