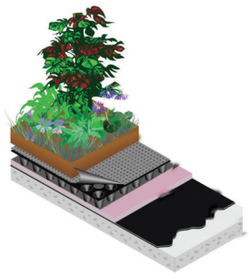
SITEDRAIN™ VRA SERIES

PREFABRICATED GREEN ROOF DRAIN

AWD
AMERICAN WICK DRAIN



PRODUCT OVERVIEW

SITEDRAIN VRA Series geocomposites are designed for vegetative roof assembly (VRA) applications, which are also commonly referred to as "green roof", "roof garden", and "eco-roof" applications. SITEDRAIN VRA products provide the "middle layer" of a complete VRA system, providing lightweight and economical solutions for drainage, aeration, water storage, soil retention, root barrier, and waterproofing membrane protection.

SITEDRAIN VRA Series products are composed of a high-strength dimpled polymeric perforated core with a geotextile bonded to both sides. The spunbonded nonwoven geotextile on the top side allows water to pass through while retaining planting media and serving as a physical root barrier to inhibit root penetration by vegetation with low to moderately aggressive root structures. The core provides water storage capacity, as well as a continuous flow path for excess water to designated drainage exits. The needlepunched nonwoven geotextile on the bottom side provides protection to layers below, such as waterproofing membranes and insulation.

SITEDRAIN VRA 50 utilizes a 0.4"-thick core and is the appropriate selection for most VRA applications. SITEDRAIN VRA 100 utilizes a 1"-thick core for specialty applications requiring increased in-plane flow capacity and/or increased water storage capacity.

PROPERTY [1]	TEST METHOD	UNIT OF MEASURE	VRA 50	VRA 100
GEOTEXTILE - TOP SIDE				
Material [2]			PP, SBNW	PP, SBNW
Survivability	AASHTO M288	Class	3	3
Grab Tensile Strength	ASTM D4632	lbs	150	150
		N	670	670
Grab Elongation	ASTM D4632	%	50	50
CBR Puncture	ASTM D6241	lbs	315	315
		N	1,380	1,380
Trapezoidal Tear	ASTM D4533	lbs	70	70
		N	310	310
UV Resistance	ASTM D4355	% / 500 Hrs	70	70
Apparent Opening Size (AOS) [3]	ASTM D4751	sieve	70	70
		mm	0.210	0.210
Permittivity	ASTM D4491	sec^{-1}	1.0	1.0
Water Flow Rate	ASTM D4491	gpm / ft^2	70	70
		Lpm / m^2	2,850	2,850
CORE				
Material [2]			HIPS	HIPS
Compressive Strength	ASTM D6364 ASTM D1621	psf	15,000	9,500
		kPa	718	455
Thickness	ASTM D5199	in	0.4	1
		mm	10	25.4
In-Plane Flow Rate [4] Hydraulic Gradient = 1.0	ASTM D4716	gpm/ft	18	80
		Lpm/m	224	933
In-Plane Flow Rate [4] Hydraulic Gradient = 0.1	ASTM D4716	gpm/ft	6	21
		Lpm/m	75	260
Water Storage Capacity	ASTM E2398	gal/ft^2	0.05	0.08
		L/m^2	2.0	3.3
Perforation Open Area	CALCULATED	in^2/ft^2	3.9	8.7
		mm^2/m^2	27,080	60,400
GEOTEXTILE - BOTTOM SIDE				
Material [2]			PP, NPNW	PP, NPNW
Grab Tensile Strength	ASTM D4632	lbs	100	100
		N	445	445
COMPOSITE				
Recycled Content [5]	CALCULATED	%	> 65	> 70
Roll Size	MEASURED	ft	4 x 50	3 x 50
Roll Weight	MEASURED	lbs	45	40
AWD Item Code			16070	16080

[1] Unless otherwise noted, all physical and performance properties listed are Typical Value as defined in ASTM D4439.
[2] PP = Polypropylene; HIPS = High Impact Polystyrene; NPNW = Needle-Punched Nonwoven; SBNW = Spunbonded Nonwoven
[3] Values for AOS represent Maximum Average Roll Value (MaxARV).
[4] In-plane flow rate measured at 3,600 psf (172 kPa) compressive load and a hydraulic gradient of 1.0.
[5] Pre-Consumer recycled content by weight.

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