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and The Weather
Since 1928

Ram Drain 36R Drainage Mat

PRODUCT DESCRIPTION

Ram Drain 36R is a composite drainage medium consisting of post-industrial recycled polyethylene filaments that are entangled into a square waffle pattern with a non-woven geocomposite filter fabric bonded to one side. The drain mat has a 3-inch (76.2mm) fabric tab beyond the core to provide overlaps with adjacent drainage courses.

Ram Drain 36R is lightweight, flexible and provides very high flow rates making it an ideal solution for numerous drainage applications.

Ram Drain 36R is an environmentally friendly water management component. Having greater than 40% post-industrial recycled content, it can contribute to LEEDS points. When used in conjunction with a green-roof, Ram Drain can provide even more LEED points.

USES

Ram Drainage medium may be used in plaza systems, foundation walls, planters, Greenroof-Roofcapes® roof gardens, parking decks, bridge decks and certain other applications requiring subsurface drainage. Ram Drain 36R will reduce hydrostatic pressure in both horizontal and vertical applications.

A minimum gradient slope of 1/8 inch per foot (1.04%) is recommended. When installed as a component part of a warranted Ram-Tough assembly, Ram Drain 36R is included under the Barrett Company's standard warranty coverage.



PHYSICAL PROPERTIES		
Test	Method	Typical Results
Thickness - Core	-	0.45 in. (11.43mm)
Weight - Fabric	ASTM-D-5261	4.5 oz/yd ² (152.6 g/m ²)
Trapezoidal Tear - Fabric	ASTM-D-4533	50 lbs. (0.22kN)
Puncture Resistance-Fabric	ASTM-D-4833	70 lbs. (0.31kN)
Flow Rate gpm/ft ² - Fabric	ASTM-D-4491	120 gal/min/ft ² (4887 l/sec/m ²)
Compression - Core	*ASTM-D-1621	>30,000 psf kN/m ² No Failure*

* Failure defined as reaching yield point or no continuous measurable flow under static load - ASTM 1621 modified

PACKAGING

Roll Size	100 ft. (1.2m) x 39 in. (99.1cm)
Area/Roll	324 sq. ft. (30.1m ²)
Weight/Sq.Ft.	20.5 oz/sq.ft. (14.17g)
Weight/Roll	57.0 lbs. (25.8 kg)

Note: This product typically ships without pallets in a box van.

PLAZA DECK/GREENROOF INSTALLATION METHOD

Clean area of loose debris.

Starting at the deck edge, install Ram Drain 36R with the fabric flap facing the wall or curb.

Cut material so that it fits tightly against all areas of the deck. Apply a bead of Ram Sealant, 0.125 to 0.025 inch wide, in a zigzag pattern along the edge without the fabric overlap. Install the next roll of Ram Drain 36R, overlapping and bonding the fabric to the previous strip.

Repeat procedure until entire deck is covered

Remove excess material from last strip without eliminating the fabric overlap.

Carefully apply overburden in accordance with project specifications.

FLOW RATES (See Metric Chart on Reverse Side)			
Pressure	1.0 Gradient	0.5 Gradient	0.2 Gradient
250 psf	22.5 gal/min/ft	15.5 gal/min/ft	9.2 gal/min/ft
500 psf	22.0 gal/min/ft	15.2 gal/min/ft	8.7 gal/min/ft
1000 psf	20.7 gal/min/ft	14.3 gal/min/ft	8.4 gal/min/ft
2000 psf	19.0 gal/min/ft	13.1 gal/min/ft	8.3 gal/min/ft
3600 psf	13.0 gal/min/ft	8.7 gal/min/ft	5.4 gal/min/ft
5000 psf	8.05 gal/min/ft	5.4 gal/min/ft	3.1 gal/min/ft
8000 psf	3.2 gal/min/ft	2.0 gal/min/ft	1.1 gal/min/ft

Gradient is expressed as a percent of slope.

Typical flow vs. pressure for vertical applications (ASTM D 4716). Sample Configuration: Plate/36R/Plate. Values are average of machine direction and cross direction test results.

PLANTER BOX INSTALLATION METHOD

Surfaces within the planter shall reasonable smooth and free of debris.

Ensure that the planter bottom has adequate slope that allows for proper flow to drain system.

Starting at the longest direction of the planter and moving in the opposite direction of the fabric flap, cut the Ram Drain 36R to length and place the fabric flap against the planter bottom.

Apply a bead of Ram Sealant adhesive 0.125 in.(3.2mm) to 0.25 in.(6.4mm) wide, in a zigzag pattern along the edge without the fabric overlap. Install the next course of Ram Drain 36R, overlapping the bonding the fabric to the previous strip.

Repeat until planter bottom is covered.

Measure the perimeter of the planter. Cut a length of Ram Drain 36R to the measured length and place horizontally around the planter wall.

For heights greater than 39 in.(990.6mm), placement shall be in vertical plane and mechanical fastening and termination is to be provided at the top of the drainage mat.

SUBGRADE WALL INSTALLATION METHOD

Use a uniform aggregate, such as pea gravel, properly grade the area around the footer to develop the correct slope of the drain pipe. Install drain pipe and sump pump prior to installation of the subsurface drainage mat. Remove all large rocks and soil clods that may affect the drainage or clog the drain system.

Start installation of Ram Drain 36R at a wall corner and work in the opposite direction of the 3 in.(76.2mm) material flap. Cut drainage mat to wall length, plus additional material to cover and wrap around the drain pipe.

Remove the top 5 in.(127mm) of netting from the drainage mat. Using Ram Sealant adhesive, bond the fabric to the wall with 0.125in.(3.2mm) to 0.25 in.(6.4mm) wide beads of adhesive. Install the next course of drainage mat, overlapping and bonding the fabric flap to the pervious piece.

Apply a bead of Ram Sealant adhesive 0.125in.(3.2mm) to .25 in.(6.4mm) wide, in a zigzag pattern along the edge of the Ram Drain 36R without the fabric overlap.

Wrap the drain pipe with Ram Drain 36R. Place soil or other suitable material at the bottom of the strip to temporarily hold it to the wall and on top of the drain pipe during backfilling.

Repeat procedure until entire wall is covered with drain mat.

Remove excess material from last strip without eliminating the fabric overlap.

APPLICATION PRECAUTIONS

- Store in dry protected location
- Do not expose to open flames
- Do not use under asphaltic concrete paving
- **READ MATERIAL SAFETY DATA SHEET BEFORE USING**
- **FOR PROFESSIONAL CONTRACTORS USE ONLY**

PRODUCT SAFETY INFORMATION

Ram Drain 36R offers no unusual health or safety risks for a product of this nature. As with any roofing process, proper ventilation, clothing and eye protection is important.

For specific information, contact the Barrett Company for a current Material Safety Data Sheet on this product.

The user should not assume that all safety measures are indicated or that other measures may not be required.

FLOW RATES (Metric Conversion)			
Pressure	1.0 Gradient	0.5 Gradient	0.2 Gradient
11.97 kPa	4.66 l/sec/m	3.21 l/sec/m	1.90 l/sec/m
23.94 kPa	4.55 l/sec/m	3.15 l/sec/m	1.80 l/sec/m
47.88 kPa	4.28 l/sec/m	2.96 l/sec/m	1.74 l/sec/m
95.76 kPa	3.93 l/sec/m	2.71 l/sec/m	1.72 l/sec/m
172.37 kPa	2.69 l/sec/m	1.80 l/sec/m	1.12 l/sec/m
239.4 kPa	1.67 l/sec/m	1.12 l/sec/m	0.64 l/sec/m
383.04 kPa	0.66 l/sec/m	0.41 l/sec/m	0.23 l/sec/m

Gradient is expressed as a percent of slope.

Note

Metric conversions are rounded and may not be exact.

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