TECHNICAL DATA SHEET

DELTA®-DRAIN 2000 HI-X

For Horizontal and Vertical Drainage Applications.

MATERIAL

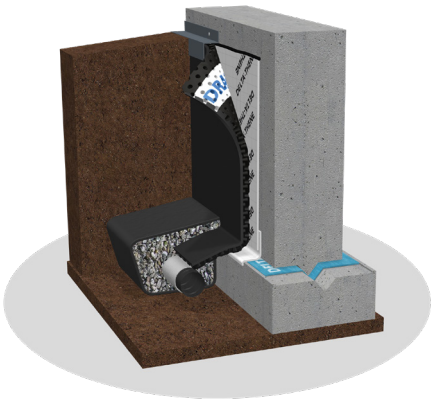
DELTA®-DRAIN 2000 HI-X is a three-dimensional, 2-layer drainage composite for light commercial applications. It consists of a dimpled drainage core and a high strength needle-punched polypropylene (PP) geotextile (non-woven) with excellent filter characteristics. The drainage core is made from a special co-polymer polypropylene that provides high impact and tear resistance, and is unaffected by environmental stress cracking. The non-clogging geotextile is fully bonded to the dimpled drainage core, which prevents it from being pushed into the flow channels by the load of the overburden material.

PROPERTIES

DELTA®-DRAIN 2000 HI-X provides a continuous path for water discharge and relieves hydrostatic pressure buildup. The non-woven geotextile allows water to pass freely into the drainage core. At the same time, it prevents the passage of soil particles to ensure that the drainage core doesn't get clogged. The geotextile meets AASHTO M288 Class 3 for elongation > 50%. DELTA®-DRAIN 2000 HI-X is the ideal solution for applications where high drainage capacity is required in light commercial applications. Subsurface water can pass easily into the drainage core where gravity feeds it into the drainage system at the bottom of the foundation. DELTA®-DRAIN 2000 HI-X is highly pressure resistant and able to withstand loads of up to 11,000 psf (527 kN/m^2). The product is rot-proof.

APPLICATION

It is suitable for applications in underground wall construction, pile and lagging wall drainage, retaining walls, bridge abutments, and as relief layer for hydrostatic pressure on any subsurface structure. It will also function as protection board in a waterproofing system. DELTA®-DRAIN 2000 HI-X comes in two roll sizes (4'x50' or 6'x50'). Its flat side is installed against the wall surfaces. In case of blind side applications such as soldier pile or lagging walls, the drainboard is installed with its geotextile side facing the soil retention system.



Technical Data

Product name	DELTA®-DRAIN 2000 HI-X	
Color	black	
Material	Drainage core: co-polymer polypropylene	
	Geotextile: Polypropylene	
Dimple height	approx. 2/5" (10 mm)	ASTM D1777-96 ASTM D5199
Compressive strength	11,000 psf (527 kN/m^2)	ASTM D6364-06
Drainage core impact ressistance	2.9 J mean failure energy at 5°C	ASTM D4226-09
Drainage core maximum tearing strength	MD 550 N CD 800 N	ASTM D5884-04a
Drainage core stress cracking resistance	504 hours @ 156 kPa (No cracking at test termination)	SAGEOS GD 001-2012
Geotextile grab tensile strength	120 lbs (534 N)	ASTM D4632
Geotextile elon-gation	50%	ASTM D4632
Geotextile trapezoidal tear	50 lbs (223N)	ASTM D4533
Geotextile CBR puncture strength	310 lbs (1380 N)	ASTM 6241
Geotextile apparent opening size (AOS)	70 sieve size (0.212 mm)	ASTM D4751-99
Geotextile water flow rate	135 gal/min/ft^2 (5500 l/min/m^2)	ASTM D4491-99
Permittivity	1.70 sec^{-1}	ASTM D4491
Geotextile weight (typical)	4.0 oz/yd^2 (135 g/m^2)	ASTM D5261-92
Geotextile UV resistance	70% @ 500 h	ASTM D4355
Geocomposite water flow rate @ hydr. grad. 1.0	18 gal/min/ft (223 l/min/m)	ASTM D4716-99
Toxicity	non-toxic, non-polluting	
Roll dimensions / weight	4' x 50' (1.2 m x 15.25 m) 38 lbs (17 kg)	
	6' x 50' (1.83 m x 15.25 m) 56 lbs (25 kg)	
Service life expec-tancy	> 25 years (at pH between 4 and 9 and temperature below 77°F / 25°C). Do not expose to UV light for more than 30 days.	

DELTA® products support sustainable and energy-efficient building practices, including efforts toward achieving LEED® certification (LEED® for New Construction & Major Renovations, LEED® for Core and Shell, LEED® for Existing Buildings and LEED® for Homes).

For technical support, call our technical support team at 1-888-4DELTA4 (1-888-433-5824) extension 326, or visit www.dorken.com.

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