

Hydrain 650

Sheet Drain

PRODUCT DESCRIPTION - Hydrain 650 sheet drain is a two-part prefabricated soil sheet drain consisting of a formed polystyrene core covered with a woven, polypropylene filter fabric on one side of the core. The fabric is bonded to each dimple to prevent soil intrusion into the water channel, and allows the water to pass into the drain core while restricting the movement of soil particles which might clog the core. The core provides high compressive strength and allows water to flow to designated exits.

BASIC USES - Hydrain 650 sheet drain is designed for horizontal drainage applications requiring a high compressive strength and high flow capacity, high compressive strength and filtration properties of a woven geotextile. The core side of Hydrain 650 is placed against the horizontal surface. Hydrain 650 provides full-coverage protection to waterproofing materials.

Typical Physical Properties			
	U. S. Value	S. I. Value	Test Method
Fabric Properties			
Material	Polypropylene	Polypropylene	
Grab Tensile Strength	365x200 lbs	1620x890N	ASTM D-4632
Puncture Strength	105 lbs	470N	ASTM D-4833
Trapezoidal Tear	115x75 lbs	510x330N	ASTM D-4533
Mullen Burst Strength	480 psi	3304 kPa	ASTM D-3786
Elongation	10%	10%	COE-22125-86
AOS	40 sieve	425 micron	ASTM D-4751
Permittivity	1.36 sec ⁻¹	1.36 sec ⁻¹	ASTM D-4491
Permeability	0.003 in/sec	0.092 cm/sec	ASTM D-4491
Flow Rate	100 gal/min/ft ²	4074 L/min/m ²	ASTM D-4491
Core Properties			
Material	Polystyrene	Polystyrene	
Thickness	7/16 inch	11 mm	
Compressive Strength	21,000 lbs/ft ²	1025kN/m ²	ASTM D-1621 (Mod)
Product Properties			
Flow Capacity	18 gal/min/ft	220 L/min/m	ASTM D-4716
Roll length	50 ft	15.24 m	
Roll width	4 ft	1.22 m	
Roll weight	46 lbs	21 kg	

All physical properties are typical values. Standard variations in mechanical properties of 10% and in hydraulic properties of 20% are normal.

INSTALLATION INSTRUCTIONS

DRAIN ATTACHMENT METHODS - For attaching drain to waterproofing material, concrete or wood, several methods may be used including metal stick pins, nails driven through washers or wood lathing, construction adhesives or double sided tape. Discuss materials compatibility with waterproofing supplier before using adhesives. Typically any method used for attaching waterproofing protection board will work with drain. To attach drain to bare earth, use 4" - 8" anchor pins with washers.

HORIZONTAL - Hydrain 650 may be loosely laid directly over the waterproofing membrane. Edges of the core with the flange should be at the higher edge (or areas) of the plaza (away from the drains). Hydrain 650 must be secured if high winds are expected prior to the pour of concrete or placement of a paver system. Minimize direct traffic on surface of the drain until wearing surface is in place.