Hydraulic Transmissivity (ASTM D4716)



TESTING PROCESS & SUMMARY

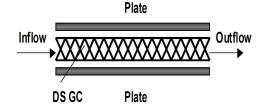
The flow capacity of the Hydraway product tested under a compressive normal stress of 5,000 psf exceeded 0.05 m²/s across the range of gradients evaluated in this report. One may compare the amount of flow that can be managed by such a geosynthetic drainage system to the flow that can be managed by a drainage aggregate in the form of gravel. When compared in this regard, a gravel layer of approximately three feet in thickness (1.0 m) would be required to have a hydraulic conductivity on the order of 5 cm/s to manage the same flow.

One may also consider a nominal thickness of gravel on the order of 4 inches, which TRI understands can be present in artificial turf applications. The gravel utilized in this application would be required to have a hydraulic conductivity on the order of 50 cm/s to be equivalent to the flow measured for the Hydraway product.

In summary, the results indicate the superior flow capacity of Hydraway compared to a gravel drainage system. It emphasizes that Hydraway can handle a significant amount of flow even when compared to a relatively thick layer of gravel, and that a thinner layer of gravel would require an even higher hydraulic conductivity to match the performance of Hydraway.

RESULTS

Normal Load (psf): 5,000 Seat Time: (hours): 1 Test Length (in): 12 Test Width (in): 12



PARAMETER	HYDRAULIC GRADIENT			
	0.02	0.015	0.01	0.005
Flow Rate (GPM/ft width)	5.76	5.24	4.72	4.43
Flow Rate (LPM/m width)	71.59	65.14	58.66	55.02
Transmissivity (m²/s)	5.96E-02	7.24E-02	9.77E-02	1.83E-01
Transmissivity (GPM/ft)	288.2	349.6	472.2	885.8
Permeability (cm/s)	222.2	269.2	364.1	683.0