

TEST REPORT

Test Date: 10/20/2014

Test Scope: This test method determines rainfall drainage capacity (permeability) of surfacing material.

Test Method: **ASTM F1551-03: Standard Test Methods for Comprehensive Characterization of Synthetic Turf Playing Surfaces and Materials: Suffix-DIN 18-035, Part 6: Water Permeability of Synthetic Turf Systems and Permeable Bases**

Test Equipment:

Tube: 10.00" ID, 8" Length
Tube Weight: 1.2 lbs
Tube Flow Head: 2.039 Gallons
Tube Index Mark: 6"
Flange: 17" Diameter

Test Sampling:

Number of Specimens: One (1)
Pre-Conditioning: 75°F 44% RH for 24 Hours
Minimum
Sample size: 18"x18"x3"
Top Layer Thickness 1/2"



Test Procedure: An 18"x18"x3.5" PolyMax specimen was used to perform drainage on. The top surface was sealed using polyurethane and silicone rubber so that the water would drain thru the top surface into the specimen and out the bottom. Water was pumped into the tube faster than could drain, until the water level was above the timing mark of 6". A timer was activated when the water level reached 6" and terminated when the water level reached the highest areas of the granules of the top surface. The flow time was recorded in seconds. This procedure was repeated four passes, with the first pass for system conditioning, and not included for calculation. Test data values represent drainage rates for the pour in place, and do not take into account the percolation properties of an underlying sub-base.

TEST RESULTS

Water Flow Thru 6" Zone	Gallons / minute / ft ²	Rainfall Capacity inches / hour
13.20 Seconds	17.00	892.5
Gallons / hour / ft ²	Gallons / minute / yd ²	Liters / minute / meter ²
1020.06	153.01	692.72

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THE ABOVE TEST INDICATES THE PERMEABILITY OF THE SURFACING MATERIAL ONLY, AND DOES NOT FACTOR IN DRAINAGE RATES OF THE UNDERLAYING SUB-BASE. OWNERS AND/OR DESIGNERS ARE ADVISED TO REFER TO LOCAL SUB-BASE MATERIALS, COMMON SUB-BASE PROCEDURES, TRADITIONS AND/OR CODES REGARDING DRAINAGE OF UNDERLAYING SUB-BASE DESIGNS. SOME UNDERLAYING SOIL CONDITIONS MAY REQUIRE ADDITIONAL DRAINAGE DESIGNS BELOW THE PLAYGROUND SURFACING SYSTEM.