



TESTING SERVICES, INC.
 817 SHOWALTER AVE. • P.O. BOX 2041
 DALTON, GEORGIA 30722-2041
 PHONE: (706) 226-1400 • FAX: (706) 226-6118



TEST REPORT

CLIENT:	Brock International	REPORT NUMBER:	63471
	2840 Wilderness Place Suite C	LAB TEST NUMBER:	2698-3034
	Boulder, CO 80301	DATE:	April 7, 2015
		PAGE:	1 of 2

Test System:

Identification
PlayBase 50

Test Scope: This test method determines rainfall drainage capacity (permeability) of submitted shock absorbing underlayment.

Test Method: **ASTM F1551: 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:	10.75" OD 10.00" ID 8" Length (Beveled)
Tube Weight:	39 lbs
Tube Flow Head:	2 Gallons
Tube Index Mark:	6"
Flange:	9.375" Diameter

Test Sampling:

# of Specimens:	(2) 11.5" Diameter
Pre-Conditioning:	70° F 65% RH for 24 Hours Minimum

Test Procedure: Two specimens, 18" X 18" were submitted for drainage capacity. The underlayment was sealed around the permeability tube using wax so that the water would drain in a vertical direction only. Water was pumped into the tube faster than could drain, until the water level was above the timing mark of 6". A stopwatch was activated when the water level reached 6" and terminated when the water level reached the highest point of the underlayment. The flow time was recorded in seconds. This procedure was repeated four passes on each specimen, with the first pass for system conditioning, and not included for calculation.

Test Data:

Specimen #	Water Flow Thru 6" Zone	Gallons/minute/yd ²	Rainfall Capacity
1	21.9 Seconds	92.4	283.5 inches/hour
2	21.0 Seconds	96.1	294.7 inches/hour

Test Data:

Water Flow Thru 6" Zone	Gallons/minute/yd ²	Rainfall Capacity
21.4 Seconds	94.2	289.0 inches/hour

Notes: Test data values represent drainage rates for the underlayment surface only and do not take into account the percolation properties of any materials used in conjunction with the underlayment or an underlying sub base.

Approved By:

Digitally signed by Erle Miles, Jr. DN: cn=Erle Miles, Jr., o=Testing Services Inc., ou=TSi, email=erle@tsi-testing.com, c=US Date: 2015.04.07 17:27:34 -0400

Erle Miles, Jr V.P., Testing Services Inc

TSi Accreditation:

Our laboratory is accredited with US Dept of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005. Our code # is NVLAP 100108-0. TSi is a certified independent laboratory by the Synthetic Turf Council.

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Attachment Photos:

