



Test Report

CLIENT:	AirField Systems	REPORT NUMBER:	56765A
	8028 N. May Avenue Suite 201	LAB TEST NUMBER:	2497-5010
	Oklahoma City, OK 73120	DATE:	December 7, 2012
		PAGE:	1 of 2

Synthetic Turf Description: 46 oz/yd² Monofilament/Slit Film Fiber
 2.25" Pile Height Monofilament / 2.125" Pile Height Slit Film
 9.25 oz/yd² 3 Layer Primary Backing
 25.1 oz/yd² Secondary Urethane Backing

Infill System Installed: 3.0 lbs/ft² SBR Rubber Mixed with 1.25 lbs/ft² Silica Sand

Underlayment #1: 10 oz Filter Fabric (Between Sub Base and Drain System)

Drain System: Air Drain (Large Opening Up (Per Supplied Specs) Against 10 oz Filter Fabric)

Underlayment #2: 4 oz Filter Fabric (On top of Flat Surface Air Drain, Under Turf)

Sub Base:	Concrete
------------------	----------

Discussion: Testing Services Inc was instructed to carry out testing on the sample supplied according to the following testing:

- Comparative Gmax or cushioning properties between the turf and sub base system vs. the turf + Air Drain + Filter Fabrics and sub base.

Material Received: 27 November 2012

Note: The above turf was selected from stock and its construction and infill properties are indicative a "typical" playing field for sports activity.

Approved By:

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 also recognized as an approved Independent Test Laboratory by the Synthetic Turf Council. However, it should be noted that some or all of the tests performed are not under our scope of accreditation due to the work not fully conforming to the standard, or it being outside the scope of our accreditation, or subcontracted.

Uncertainty: We undertake all assignments for our clients on a best effort basis. Our findings and judgments are based on the information to us using the latest test methods available.

Testing Atmosphere: Unless otherwise noted, all testing was conducted under standard lab conditions of 20± 2°C and 65 ± 4% r.h.

**TESTING SERVICES, INC.**

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

Report Date: 7 December 2012
 Report #: 56765A
 Page #: 2 of 2

Client: AirField Systems

Date of Test: 7 December 2012

Test Conditions: 68°F 42% RH.

Procedure: **ASTM F355-10a: Standard Test Methods for Shock-Absorbing Properties of Playing Surface Systems and Materials (Procedure A)**

Data obtained from this test method are indicative of cushioning properties of the playing surface system and materials under the specific conditions selected. The playing system is impacted at a specified velocity with a missile of given mass and geometry to determine the maximum value of *G encountered during impact*.

The test set-up was positioned over the sub base with the clearview bumper II (gmax test equipment) placed level over the entire system. The missile was released, so as to impact the center of the assembly at a velocity of 3.43 m/s at a drop height of 24". Three drops were made at 3 minute intervals. This procedure was repeated in three different locations for a total of nine drops. The first drop at each location was for assembly conditioning and was not included in the average.

<u>Test Data:</u>		Turf + Infill System Over Sub Base	
Location	G-Max Read Drop #2	G-Max Reading Drop #3	Average G-Max Reading
1	102	105	104
2	110	112	111
3	110	112	111
OVERALL GMAX:			109

<u>Test Data:</u>		Turf + Infill System + 4 oz Filter Fabric + AirDrain + 10 oz Filter Fabric Over Sub Base ↓	
Location	G-Max Read Drop #2	G-Max Reading Drop #3	Average G-Max Reading
1	90	93	92
2	91	95	93
3	92	96	94
OVERALL GMAX:			93

Conclusion: Use of the filter fabrics and AirDrain with infilled synthetic turf reduced Gmax attenuation 14.7 % verses Gmax attenuation which employed just the turf + infill system using the same sub base.