



TESTING SERVICES, INC.
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TEST REPORT

CLIENT:	Robertson Industries	REPORT NUMBER:	48732
	4401 E. Baseline Road Suite 105	LAB TEST NUMBER:	2150-2269
	Phoenix, AZ 85042	DATE:	July 13, 2010
		PAGE:	1 of 2

Product Description: TT SyntheticPro 4.25" (1.75" Pile Ht Synthetic Turf w/Thatch Layer infilled with 2.5 lbs/sq/ft 12-20 Silica Sand over 2.5" Ht Pour-in-Place

Tested Dimension: 18" x 18" X 4.25"

Sub Base: Concrete

Impact Location: Center of Test Material

Date of Receipt: May 10, 2010

Testing Period: June 23--29, 2010

Authorization: Steve Scaturro

Test Procedure: The submitted sample was evaluated for Shock Absorbing Properties in Accordance with the procedures outlined in ASTM F 1292-09; Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment

Missile: Hemispherical (Triaxial Accelerometer): Total Drop Assembly Weight (46g) 10 lbs

Test Equipment: Triax 2000 Surface Impactor
 Date of Last Calibration: 3/24/2010 by Alpha Automation

Sample Pre-Condition: 50±10 RH, 7sF±5F for a minimum of 24 hrs prior to testing

Sample Conditioning: 8 hrs @ each reference temperatures prior to testing

Temperature: Maximum Drop Height That Gives a Gmax of 200 or Less and A HIC of 1000 or less

Ambient, 72°F (23°C) 8'

Hot, 120°F (49°C) 7'

Cold, 25°F (-6°C) 8'

Critical Fall Height (CFH):	7'
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Reference Gmax Curves Included

Prepared and signed by:

 Erle Miles, Jr. VP
 Testing Services Inc.



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AMBIENT Sample Condition: Dry Temperature: 70°F (23°C)	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC
	1	21.4	3	7'	7.12	128	726
	2	21.3	1	7'	7.05	131	744
	3	21.3	0	7'	7.05	132	750
	Average			Drops 2, 3		132	747
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC
	1	22.7	3	8'	8.01	142	906
	2	22.8	5	8'	8.08	149	964
	3	22.8	2	8'	8.08	150	959
	Average			Drops 2, 3		150	962
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC
	1	24.1	1	9'	9.03	157	1041
2	24.2	5	9'	9.10	165	1124	
3	24.2	0	9'	9.10	167	1139	
Average			Drops 2, 3		166	1132	

HOT Sample Condition: Dry Temperature: 120°F (49°C)	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC
	1	19.7	5	6'	6.03	113	546
	2	19.7	0	6'	6.03	118	579
	3	19.8	4	6'	6.09	119	587
	Average			Drops 2, 3		119	583
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC
	1	21.2	4	7'	6.98	135	744
	2	21.3	3	7'	7.05	138	792
	3	21.3	3	7'	7.05	142	802
	Average			Drops 2, 3		140	797
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC
	1	22.7	2	8'	8.01	150	989
2	22.8	1	8'	8.08	154	993	
3	22.8	1	8'	8.08	158	1045	
Average			Drops 2, 3		156	1019	

COLD Sample Condition: Dry Temperature: 25°F (-6°C)	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC
	1	21.4	0	7'	7.12	121	640
	2	21.4	2	7'	7.12	129	689
	3	21.5	1	7'	7.18	128	685
	Average			Drops 2, 3		129	687
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC
	1	22.7	3	8'	8.01	137	828
	2	22.8	2	8'	8.08	145	883
	3	22.8	3	8'	8.08	142	855
	Average			Drops 2, 3		144	869
	Drop #	Velocity ft/sec	Angle	Drop Ht/Actual	Drop Ht/Theoretical	Gmax	HIC
	1	24.2	8	9'	9.10	158	1118
2	24.2	5	9'	9.10	158	1097	
3	24.2	8	9'	9.10	163	1139	
Average			Drops 2, 3		161	1118	