



TEST REPORT

CLIENT:

Company:	Controlled Products	Report Number:	70076
Address:	200 Howell Drive	Lab Test Number:	2893-1606-01
	Dalton, GA 30721	Test Completion Date:	2/27/2017
		Report Date:	2/27/2017
Requested By:	Damon Henderson	Page:	1 of 2

TEST MATERIAL:

Material Type:	Synthetic Turf over pad	Date Received:	2/15/2017
Turf ID:	PL929	Padding:	23mm Thermagreen Pad
Infill:	2.0 lbs/ft ² 20/40 Silica Sand	Subbase:	3" Aggregate (2" Rock + 1" Compacted Fines Layer)

TESTING METHODS REQUESTED:

<i>Testing Services Inc. was instructed by the client to test for the following...</i>			
Standard:	ASTM F1292	Test Method:	Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment

SAMPLING PLAN:

Sampling Date:	2/24/2017
<ul style="list-style-type: none"> Specimen sampling is performed in the sampling department at TSI beside the ground level dock door. The sampling size of specimens is determined by the test method requirements. In the event a specific sampling size is not called for, a determination will be made on previous testing experience, and approved for use by an authorized manager. All samples are subjected to the outside environmental conditions of temperature and relative humidity. Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested. 	

DEVIATION FROM TEST METHOD:

<i>State Reason for any Deviation, Additions to, or Exclusions from Test Method</i>	
The subbase was deviated from test protocol of concrete and replaced with the above listed subbase at the request of the client.	

TEST SUMMARY:

Test Method	Condition		Gmax	HIC	Fall Height
ASTM F1292-13	Ambient	72°F	174	891	5'
	Hot	120°F	185	964	5'
	Frozen	25°F	176	914	5'

Full test data reported on page 2 of this report

Critical Fall Height < 200 Gmax < 1000 HIC, All Temperature Ranges	5'
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→ Test Equipment: Triax 2015 Calibration: 5/5/2016

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. TSI can only ensure the test results for the specific items tested. Unless otherwise noted in the deviations sections of this report, all tests performed are in compliance with stated test method.

Test Report Approval:

Erle Miles, Jr. VP, Testing Services Inc.

Form:	Rev:	Revision Date:	Page 1 of 2
Release Date:	Control Type: Electronic - Expires 24 hours after this date: 2/27/17 Printed Copies are uncontrolled		

OUR LETTERS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. THESE LETTERS AND REPORTS ARE FOR THE USE ONLY OF THE CLIENT TO WHOM THEY ARE ADDRESSED AND THEIR COMMUNICATION TO ANY OTHERS OR THE USE OF THE NAME TESTING SERVICES, INC. MUST RECEIVE OUR PRIOR WRITTEN APPROVAL. OUR REPORTS, LETTERS, NAME, SEALS, OR INSIGNIA ARE NOT UNDER ANY CIRCUMSTANCES TO BE USED IN ADVERTISING TO THE GENERAL PUBLIC.

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TEST DATA: (Average is drop 2 & 3, Drop 1 is for conditioning only)

CONDITIONS	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC	
AMBIENT 72° F	1	15.8	5	4'	137	561	
	2	15.7	1	4'	129	510	
	3	15.8	6	4'	141	589	
					AVERAGE Gmax/HIC	135	550
	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC	
	1	17.6	5	5'	159	784	
	2	17.7	8	5'	170	862	
	3	17.7	5	5'	178	919	
					AVERAGE Gmax/HIC	174	891
	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC	
	1	19.3	4	6'	188	1119	
	2	19.4	5	6'	186	1067	
3	19.4	5	6'	190	1135		
				AVERAGE Gmax/HIC	188	1101	

CONDITIONS	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC	
HOT 120° F	1	15.7	1	4'	145	645	
	2	15.8	6	4'	158	697	
	3	15.8	5	4'	163	721	
					AVERAGE Gmax/HIC	161	709
	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC	
	1	17.7	3	5'	190	1002	
	2	17.6	8	5'	186	971	
	3	17.6	1	5'	183	957	
					AVERAGE Gmax/HIC	185	964
	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC	
	1	19.3	5	6'	194	1162	
	2	19.3	4	6'	201	1200	
3	19.4	8	6'	211	1287		
				AVERAGE Gmax/HIC	206	1244	

CONDITIONS	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC	
FROZEN 25° F	1	15.7	4	4'	141	593	
	2	15.7	10	4'	160	706	
	3	15.8	9	4'	165	737	
					AVERAGE Gmax/HIC	163	722
	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC	
	1	17.6	8	5'	161	822	
	2	17.7	4	5'	179	951	
	3	17.6	4	5'	173	876	
					AVERAGE Gmax/HIC	176	914
	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC	
	1	19.3	9	6'	203	1225	
	2	19.3	1	6'	220	1396	
3	19.3	2	6'	220	1389		
				AVERAGE Gmax/HIC	220	1393	

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