TESTING SERVICES INC

TEST REPORT

CLIENT:

Company:	Controlled Products	Report Number:	71751
Address:	200 Howell Drive	Lab Test Number:	2950-3872
	Dalton, GA 30721	Test Completion Date:	9/7/2017
		Report Date:	9/7/2017
Requested By:	Frank Harp	Page:	1 of 2

TEST MATERIAL:

Material Type:	Synthetic Turf over pad	Date Received:	9/5/2017
Turf ID:	PL929	Padding:	Polygreen Foam 2 1/8" Playground Pad
Infill:	none	Subbase:	3" Aggregate (2" Rock + 1" Compacted Fines Layer)

TESTING METHODS REQUESTED:

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

SAMPLING PLAN:

Sampling Date:	9/5/2017

- 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 expereince, and approved for use by an authorized manager.
- All samples are subjected to the outside enviromental conditoins of temperature and relative humidity.
- Sample requiring pre-determined exposure to specified environmental condtions based on a specific test method, take place in the departments in which they are tested.

DEVIATION FROM TEST METHOD:

State Reason for any Devation, Additions to, or Exclusions from Test Method
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	139	918	8'
	Hot	120°F	147	952	8'
	Frozen	25°F	137	869	8'

Full test data reported on page 2 of this report

Critical Fall Height < 200 Gmax < 1000 HIC, All Temperature Ranges	8'

→ *Test Equipment: Triax 2015*

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:

Digitally signed by Erle Miles
DN: cn=Erle Miles, o=Testing Services Inc., ou, email=tsioffice@optilink.us, c=US
Date: 2017.09.07 16:46:19 -04'00'

Erle Miles, Jr. VP, Testing Services Inc.

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 conditioniing only)*

CONDITIONS	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC
	1	21.0	9	7'	110	602
	2	21.0	6	7'	121	669
	3	20.9	8	7'	124	709
				AVERAGE Gmax/HIC	123	689
	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC
AMBIENT	1	22.3	7	8'	137	926
	2	22.4	5	8'	139	919
72° F	3	22.3	5	8'	139	916
				AVERAGE Gmax/HIC	139	918
	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC
	1	23.7	2	9'	156	1087
	2	23.8	1	9'	154	1084
	3	23.8	9	9'	172	1239
				AVERAGE Gmax/HIC	163	1162

CONDITIONS	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC
	1	21.0	8	7'	115	608
	2	21.0	2	7'	124	670
	3	21.0	7	7'	130	737
				AVERAGE Gmax/HIC	127	704
	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC
HOT	1	22.4	1	8'	131	810
	2	22.4	5	8'	144	922
120° F	3	22.4	8	8'	150	982
				AVERAGE Gmax/HIC	147	952
	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC
	1	23.9	7	9'	165	1121
	2	23.9	8	9'	189	1336
	3	23.8	1	9'	200	1447
				AVERAGE Gmax/HIC	195	1392

CONDITIONS	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC
	1	20.9	1	7'	121	683
	2	21.1	7	7'	123	690
	3	21.0	8	7'	121	662
				AVERAGE Gmax/HIC	122	676
	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC
FROZEN	1	22.4	3	8'	118	711
	2	22.3	7	8'	137	877
25° F	3	22.5	6	8'	137	861
				AVERAGE Gmax/HIC	137	869
	Drop	Velocity (ft/sec)	Angle	Drop Height	Gmax	HIC
	1	23.8	7	9'	135	913
	2	23.8	7	9'	156	1088
	3	23.8	9	9'	159	1136
				AVERAGE Gmax/HIC	158	1112

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