

**TEST REPORT**

DATE: 05-19-2020

TEST NUMBER: 0404427

CLIENT Target Technologies International, Inc.

TEST CONDUCTED ASTM F1292 Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment



PRODUCT NAME TTII Peak-Performance Pad 19mm

DESCRIPTION OF PRODUCT TESTED Sports Field Turf infilled with 4.0 lbs of sand and 1.25 lbs of rubber tested over GeoTextile with 19mm Performance Pad underlay over 4 inch concrete.



**GENERAL PRINCIPLE**

A test specimen is prepared using the commissioner’s installation instructions by applying a seam through the middle of the surface material. the material is groomed and infilled as recommended. Each panel for testing is acclimated for a minimum of 24 hours in each respective condition. NIST Traceable temperature sensors are inserted into the sample to ensure the correct temperature is achieved through the matrix. Testing is commenced within one minute of removal from the acclimation chambers. The specimen is impacted at a specified velocity with a missile of given mass of 10.1 lbs and geometry. A transducer mounted in the missile monitors the acceleration time history of the impact, which is recorded with the aid of an oscilloscope or other recording device. The head-form was dropped at the requested height. The GMAX values, HIC (head impact criteria) are recorded for three drops. The second and third drops are averaged. Testing was conducted at three temperatures as listed on the results. The maximum criterion for passing a specified drop height is 200 gmax or 1,000 HIC.

Equipment	Accelerometer Calibration	Accelerometer Manufacturer and Type	Laboratory Conditions
GC Fall-tech	3-28-20	PCB Model 356B20	70° F and 50% RH
Date Received	Specimen Size Tested	Infill Total Weight	Infill Type
5-15-20	4.0 Square Feet	21.0 Lbs.	Rubber and Sand

APPROVED BY: *Gary Anthony*

This report is provided for the exclusive use of the client to whom it is addressed. It may be used in its entirety to gain product acceptance from duly constituted authorities. This report applies only to those samples tested and is not necessarily indicative of apparently identical of similar products. This report, or the name of Professional Testing Laboratory Inc. shall not be used under any circumstance in advertising to the general public.



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PRODUCT NAME	TTII Peak-Performance Pad 19mm
DESCRIPTION OF PRODUCT TESTED	Sports Field Turf infilled with 4.0 lbs of sand and 1.25 lbs rubber tested over GeoTextile with 19mm Performance Pad underlay over 4 inch compacted aggregate.
PHOTO	

**GENERAL PRINCIPLE**

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**TEST RESULTS**

Tested at 25° F	DROP 1	DROP 2	DROP 3	AVERAGE OF DROPS 2 AND 3
GMAX	166	151	154	152
HIC	1109	888	885	887

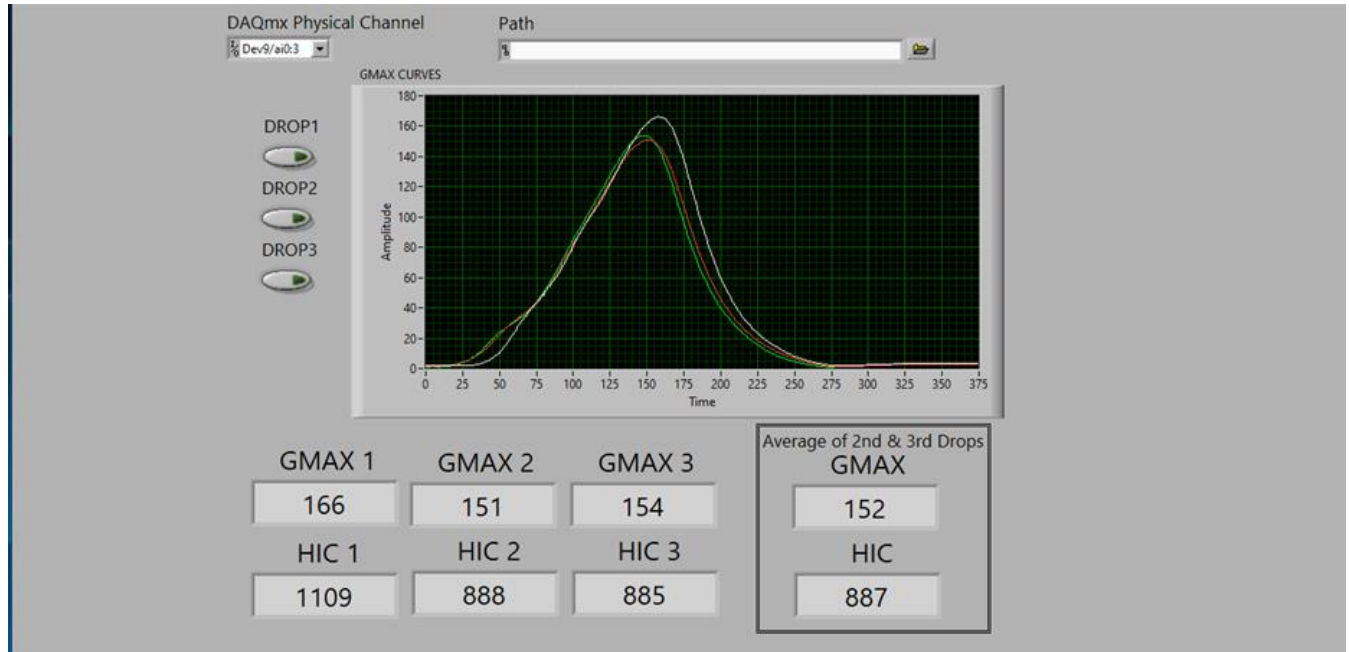
\* Submitted samples subjected to a theoretical drop height of 6.0 feet.

Tested at 72° F	DROP 1	DROP 2	DROP 3	AVERAGE OF DROPS 2 AND 3
GMAX	148	144	149	147
HIC	870	841	902	872

\* Submitted samples subjected to a theoretical drop height of 6.5 feet.

Tested at 120° F	DROP 1	DROP 2	DROP 3	AVERAGE OF DROPS 2 AND 3
GMAX	160	157	161	169
HIC	957	922	978	950

\* Submitted samples subjected to a theoretical drop height of 6.0 feet.



**COMMENTS**

The tested assembly meets the criterion of performance of the determined least favorable impact position at a 6.0 fall height according to section 4.2 of ASTM F1292-17a. The determined least favorable impact position was at the seam of the turf over a seam of the cushion.

“The results reported herein reflect the performance of the described samples at the time of testing and at the temperature(s) reported. The results are specific to the described samples. Samples of surfacing materials that do not closely match the described samples will perform differently”.

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