

TEST REPORT

DATE: 05-19-2020

TEST NUMBER: 0404426

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 25mm
DESCRIPTION OF PRODUCT TESTED	Sports Field Turf infilled with 4.0 lbs of sand and 1.25 lbs of rubber tested over GeoTextile with 25mm Performance Pad underlay over 4 inch compacted aggregate.
PHOTO	

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.	SBR & 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 or 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 25mm

DESCRIPTION OF PRODUCT TESTED Sports Field Turf infilled with 4.0 lbs of sand and 1.25 lbs of rubber tested over GeoTextile with 25mm 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.

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TEST RESULTS

Tested at 25° F	DROP 1	DROP 2	DROP 3	AVERAGE OF DROPS 2 AND 3
GMAX	131	177	142	159
HIC	775	1011	813	912

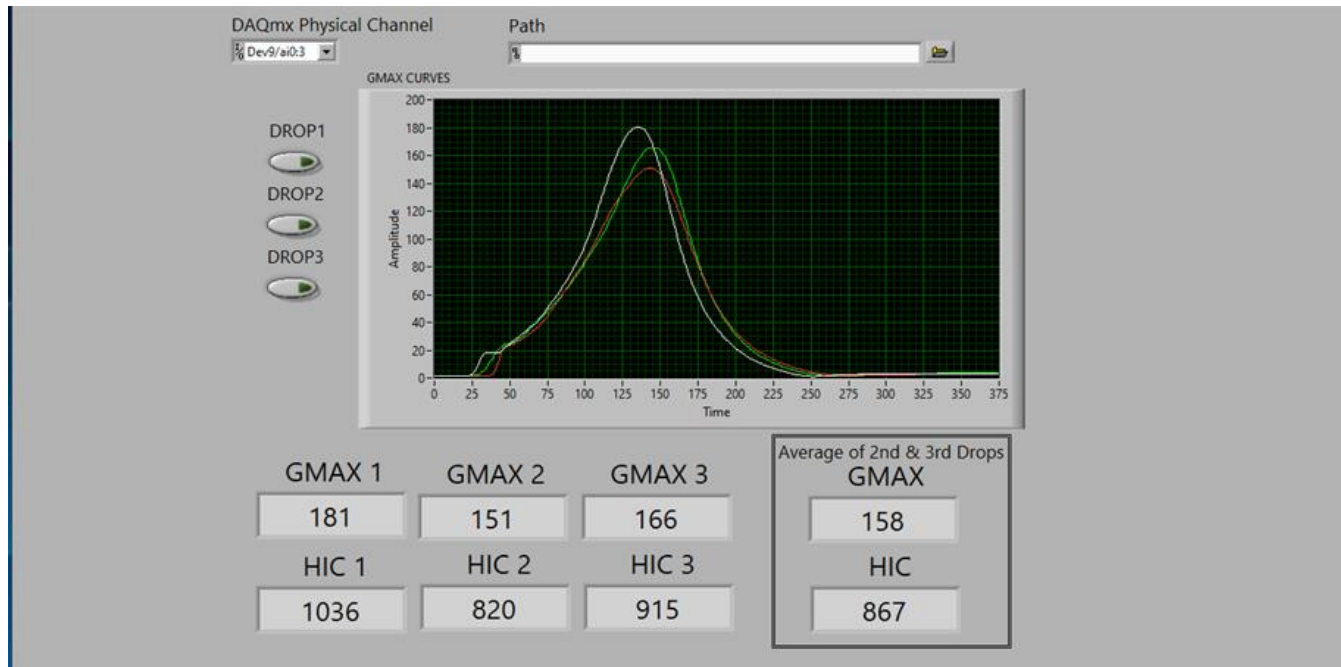
* Submitted samples subjected to a theoretical drop height of 6.0 feet.

Tested at 72° F	DROP 1	DROP 2	DROP 3	AVERAGE OF DROPS 2 AND 3
GMAX	181	151	166	158
HIC	1036	820	915	867

* Submitted samples subjected to a theoretical drop height of 7.0 feet.

Tested at 120° F	DROP 1	DROP 2	DROP 3	AVERAGE OF DROPS 2 AND 3
GMAX	148	140	149	145
HIC	850	802	891	847

* 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 7.0 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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