

TEST REPORT

14-0504IT-B

Issued on November 09th 2014

CLIENT

KATASKEVES DAPEDON LTD

PRODUCT NAME

PLAYPREM 90+10mm

TYPE

SHOCK ABSORBING SURFACE

Test according to:

**UNI EN 1177:2008 Impact attenuating playground surfacing.
Determination of critical fall height**

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The results are solely considered valid for the specime subjected to testing*

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SUBJECT

Determination of the HIC value in accordance with the EN 1177:2008

REFERENCE DOCUMENTS

REFERENCE STANDARDS AND REGULATIONS USED

UNI EN 1177:2008 Impact attenuating playground surfacing. Determination of critical fall height

STORAGE TIMES

Storage of documents and untested samples 1 month from the issue of the report

APPLICANT

COMPANY NAME
ADDRESS

KATASKEVES DAPEDON LTD
5 Koromila Str.
54645 Thessaloniki

COUNTRY

Greece

DATA ACQUISITION

DATE ORDER RECEIVED

September 30th 2014

DATE FIRST SAMPLE RECEIVED

September 19th 2014

DATE LAST SAMPLE RECEIVED

September 19th 2014

START DATE OF TESTS

October 20th 2014

END DATE OF TESTS

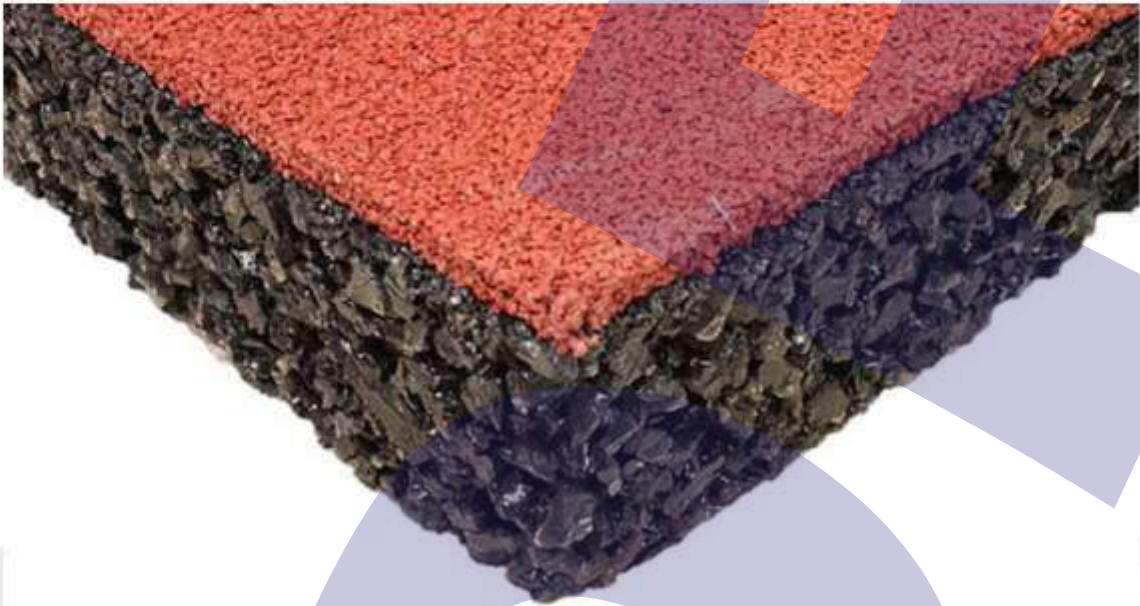
October 28th 2014

TEST PERFORMANCE CONDITION IN LABORATORY

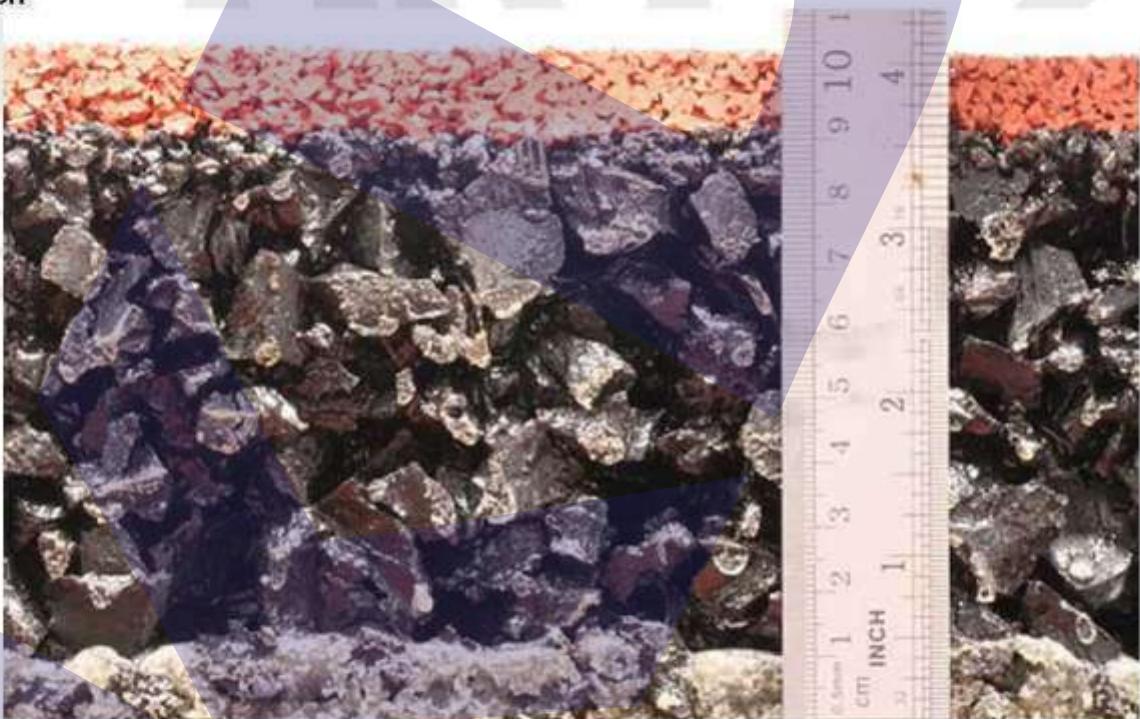
Air temperature	Relative humidity
23°C ± 2°C	50% ± 5%

SAMPLE IDENTIFICATION

General view



Section



Product description

Trade name	PLAYPREM 90+10mm
Declared thickness	100mm.
Description	Shock absorbing surface with first layer of SBR granules (90mm.) and a top layer of EPDM granules (10mm.) for a total thickness of 100mm.

DATA ACQUISITION

SCHEME OF MEASUREMENTS DONE



DESCRIPTION OF THE TEST

The test consists of dropping out of each of the nine points occurred a hemispherical mass with an accelerometer for four times in each of the nine points to a different height of fall detecting the values of HIC for each of the points.

TEST RESULTS

Verified point	HIC 1000 (cm. value)	Critical fall height (meters value)	Total critical fall height (meters value)
A	1.93	1.9	1.7
B	1.78	1.7	
C	1.78	1.7	
D	1.78	1.7	
E	1.80	1.7	
F	1.85	1.8	
G	1.83	1.8	
H	1.81	1.8	
I	1.84	1.8	

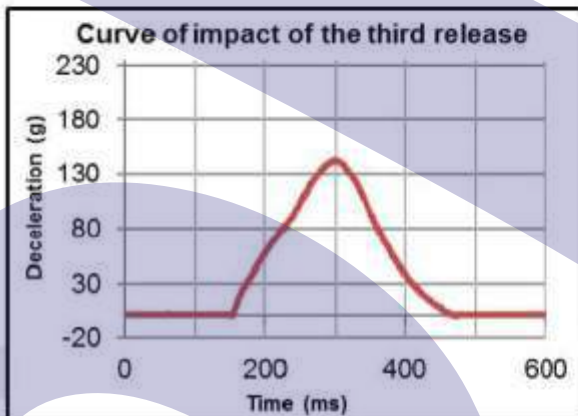
DETAIL OF THE TESTS POINT "A"

HIC CURVE

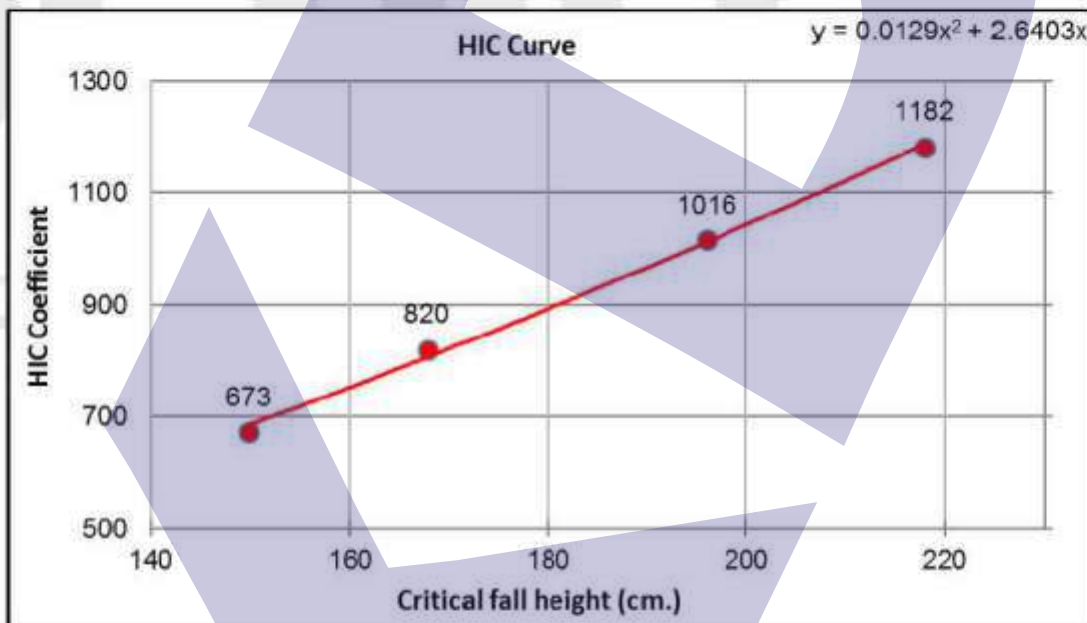
Thickness of the sample at the point "A"

100mm.

Impact No.	Time (ms)	Gmax (g)	Height (cm.)	HIC
1	8.8	116.5	150	673
2	8.3	129	168	820
3	8.2	142.7	196	1016
4	8	153.6	218	1182



Critical fall height of the point 1	
1.9 m	per HIC=1000
Requirement	
H≥1.3m	



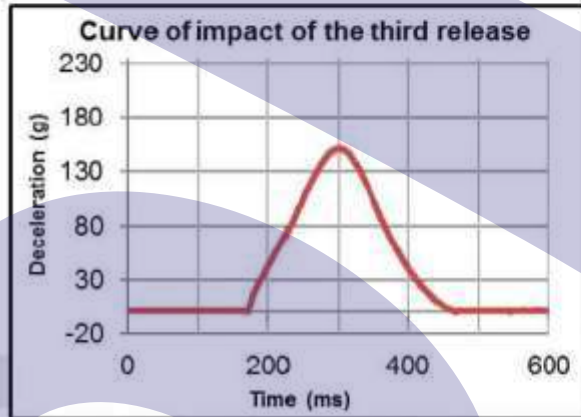
DETAIL OF THE TESTS POINT "B"

HIC CURVE

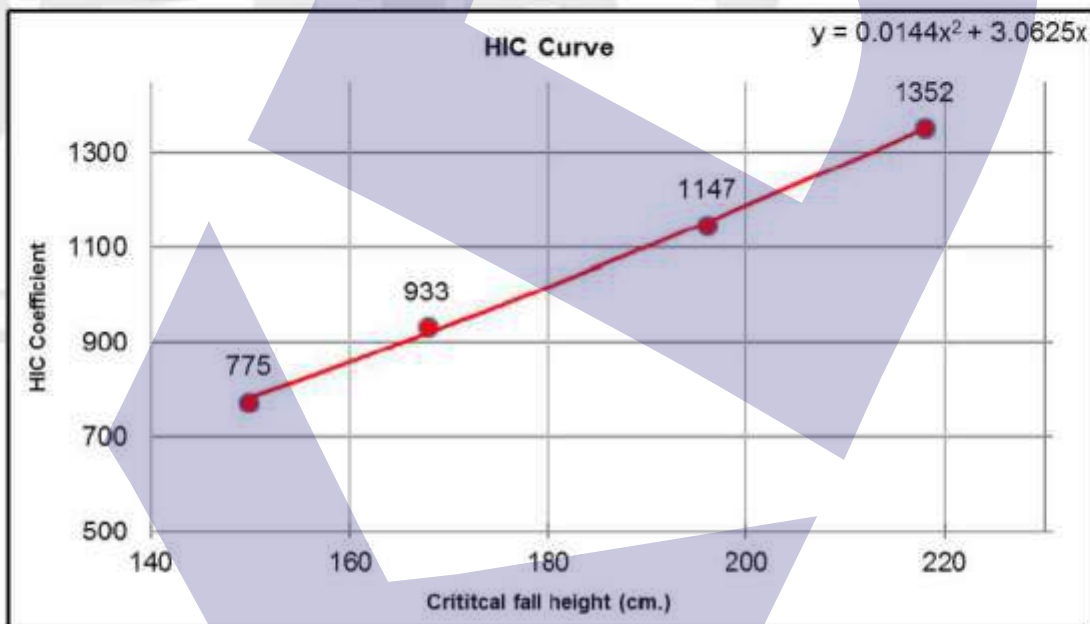
Thickness of the sample at the point "B"

100mm.

Impact No.	Time (ms)	Gmax (g)	Height (cm.)	HIC
1	7.8	125.5	150	775
2	7.6	138.9	168	933
3	7.5	151.2	196	1147
4	7.3	163.8	218	1352



Critical fall height of the point 1	
	1.7 m per HIC=1000
Requirement	
	H≥1.3m



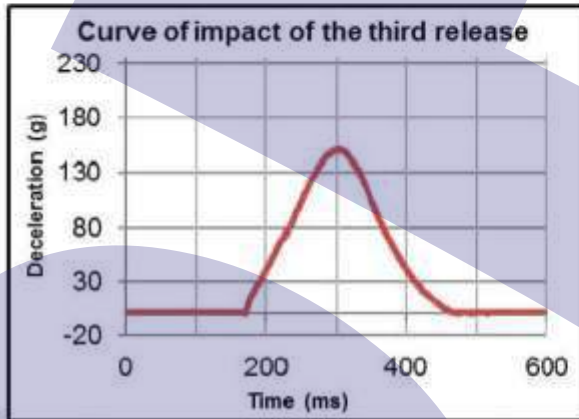
DETAIL OF THE TESTS POINT "C"

HIC CURVE

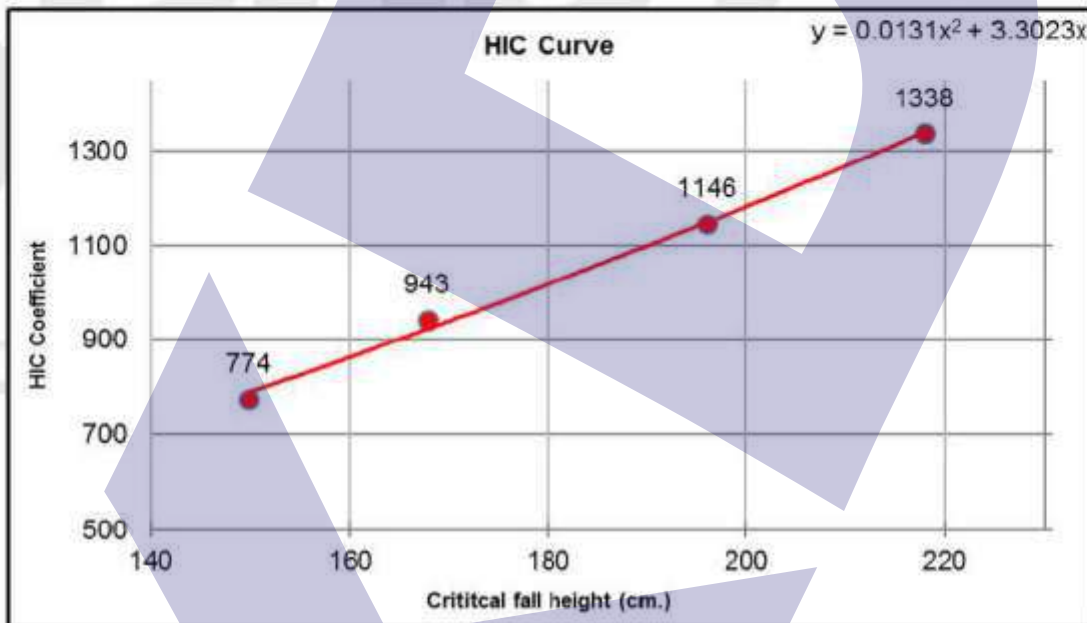
Thickness of the sample at the point "C"

100mm.

Impact No.	Time (ms)	Gmax (g)	Height (cm.)	HIC
1	7.9	125.7	150	774
2	7.6	139.3	168	943
3	7.5	150.9	196	1146
4	7.3	162.7	218	1338



Critical fall height of the point 1	
1.7 m	per HIC=1000
Requirement	
H _c ≥ 1.3m	



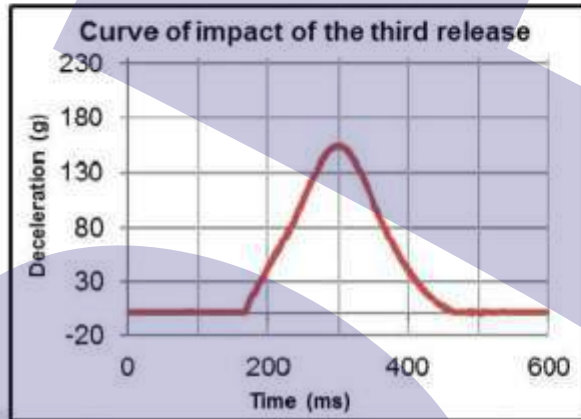
DETAIL OF THE TESTS POINT "D"

HIC CURVE

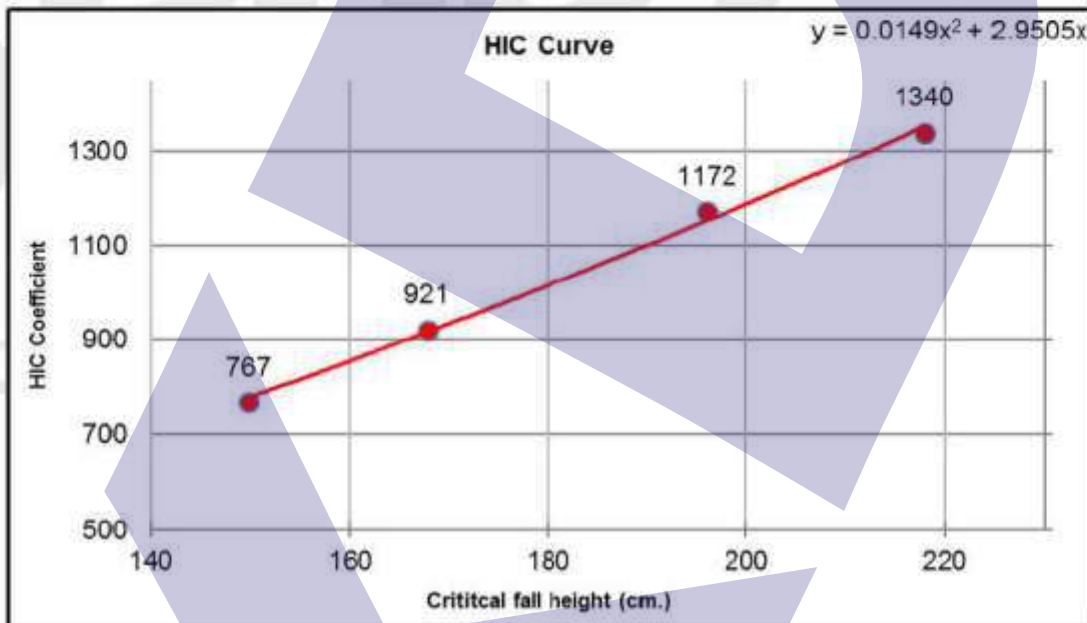
Thickness of the sample at the point "D"

100mm.

Impact No.	Time (ms)	Gmax (g)	Height (cm.)	HIC
1	7.9	124.4	150	767
2	7.6	137	168	921
3	7.3	153.9	196	1172
4	7.2	162.1	218	1340



Critical fall height of the point 1	
1.7 m	per HIC=1000
Requirement	
H _c ≥ 1.3m	



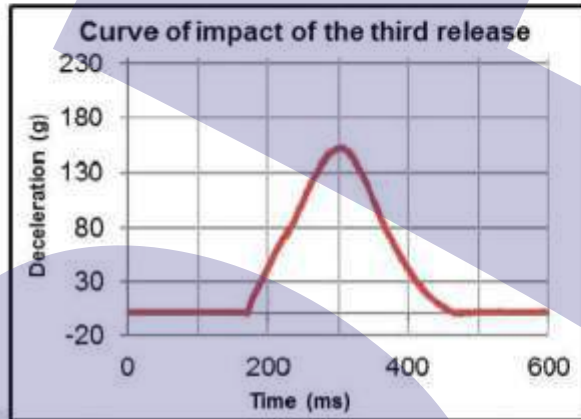
DETAIL OF THE TESTS POINT "E"

HIC CURVE

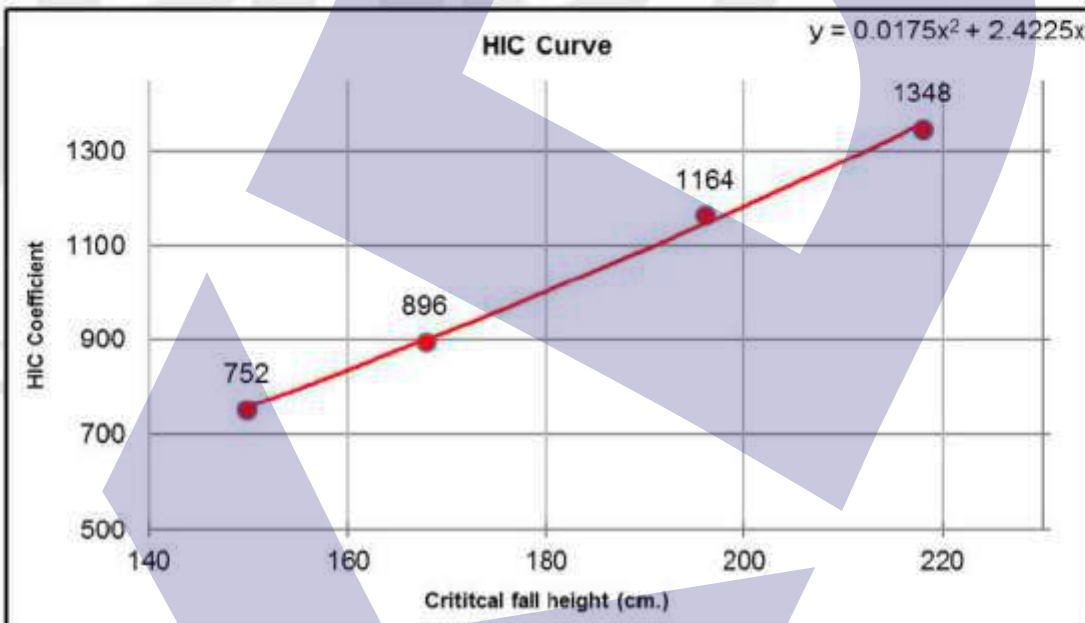
Thickness of the sample at the point "E"

100mm.

Impact No.	Time (ms)	Gmax (g)	Height (cm.)	HIC
1	8.1	123	150	752
2	7.9	133.8	168	896
3	7.6	151.9	196	1164
4	7.4	163.1	218	1348



Critical fall height of the point 1	
1.7 m	per HIC=1000
Requirement	
H _c ≥1.3m	



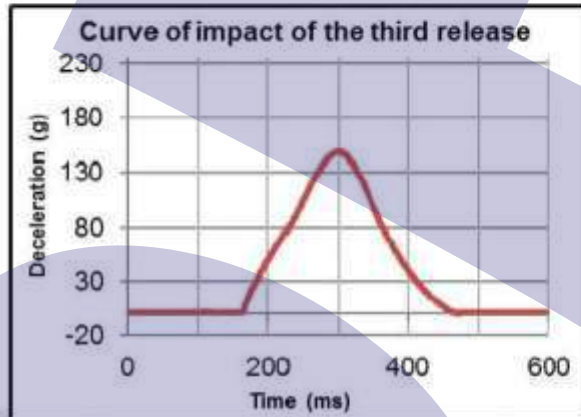
DETAIL OF THE TESTS POINT "F"

HIC CURVE

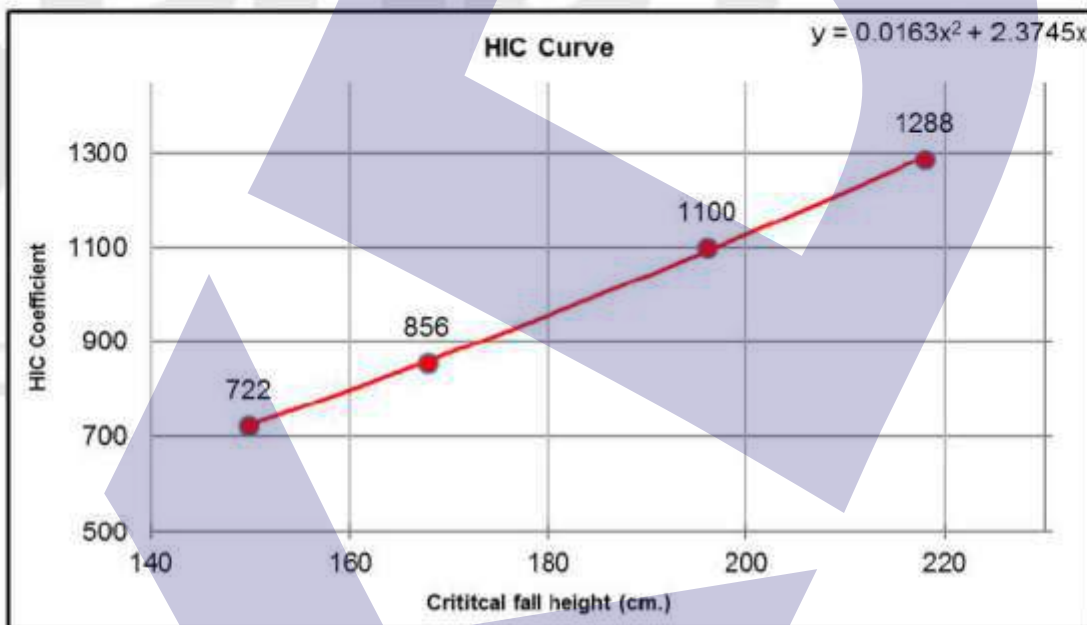
Thickness of the sample at the point "F"

100mm.

Impact No.	Time (ms)	Gmax (g)	Height (cm.)	HIC
1	8.2	120.3	150	722
2	8.1	131.7	168	856
3	7.8	148.8	196	1100
4	7.5	159.4	218	1288



Critical fall height of the point 1	
1.8 m	per HIC=1000
Requirement	
H _c ≥ 1.3m	



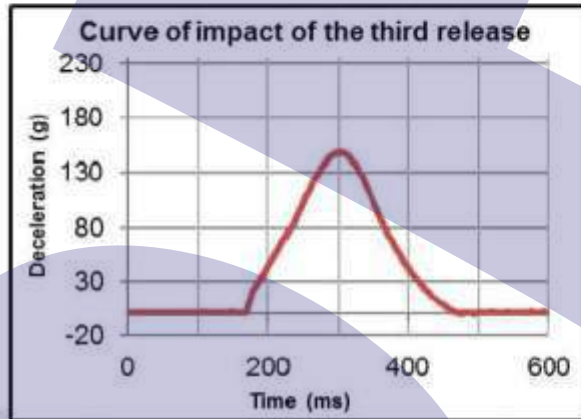
DETAIL OF THE TESTS POINT "G"

HIC CURVE

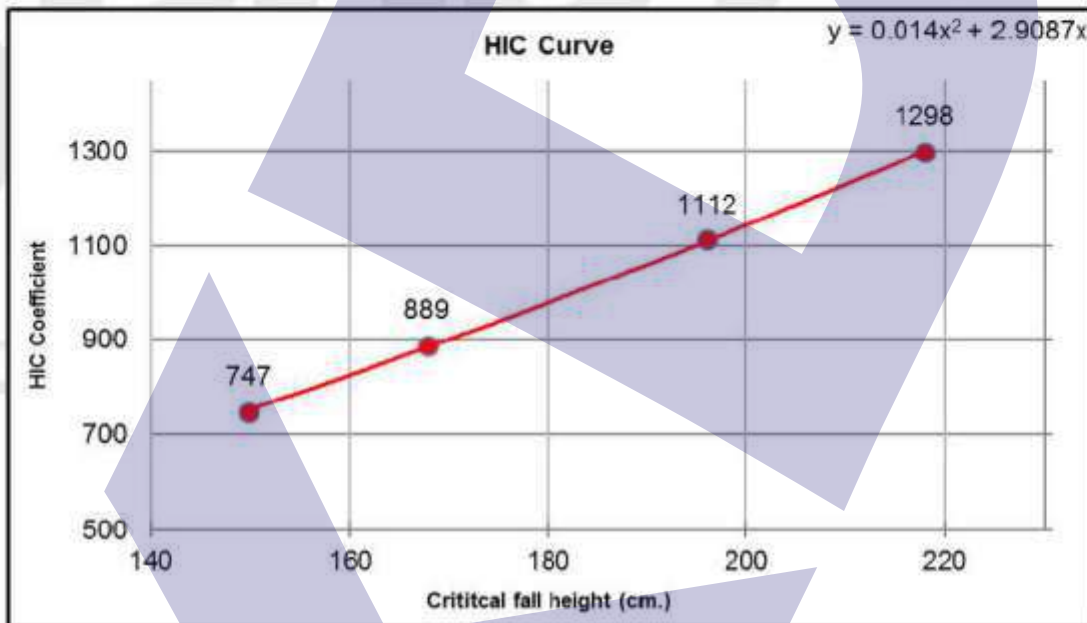
Thickness of the sample at the point "G"

100mm.

Impact No.	Time (ms)	Gmax (g)	Height (cm.)	HIC
1	8.1	122.6	150	747
2	7.8	134.1	168	889
3	7.6	148.4	196	1112
4	7.4	160	218	1298



Critical fall height of the point 1	
1.8 m	per HIC=1000
Requirement	
H _c ≥ 1.3m	



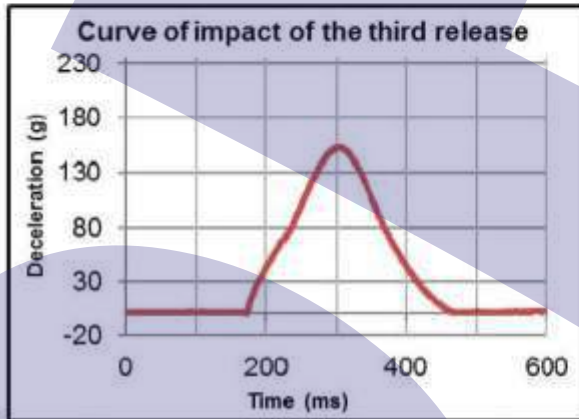
DETAIL OF THE TESTS POINT "H"

HIC CURVE

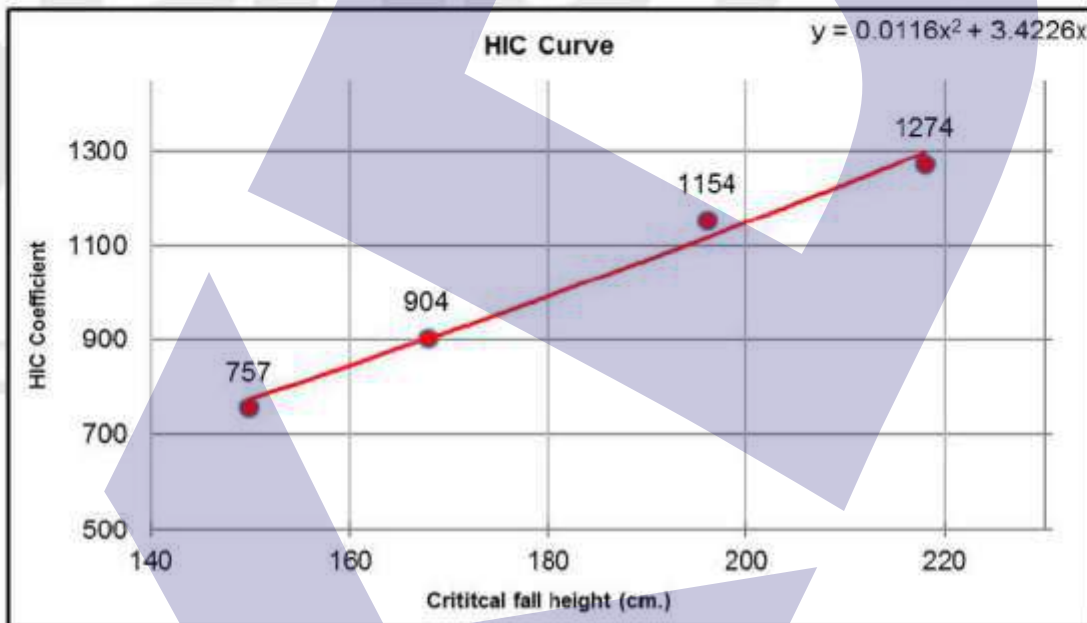
Thickness of the sample at the point "H"

100mm.

Impact No.	Time (ms)	Gmax (g)	Height (cm.)	HIC
1	8	123.7	150	757
2	7.8	135.9	168	904
3	7.5	152.6	196	1154
4	7.6	157.5	218	1274



Critical fall height of the point 1	
1.8 m	per HIC=1000
Requirement	
H _c ≥ 1.3m	



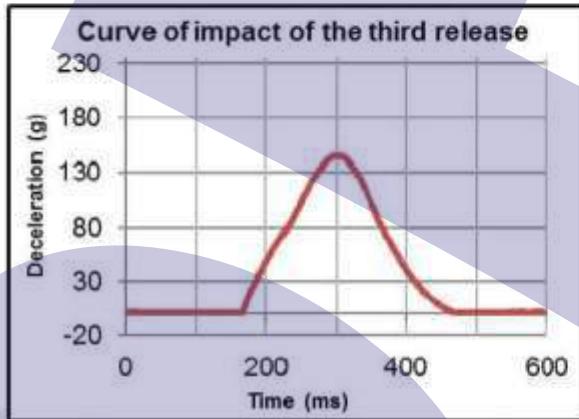
DETAIL OF THE TEST POINT "I"

HIC CURVE

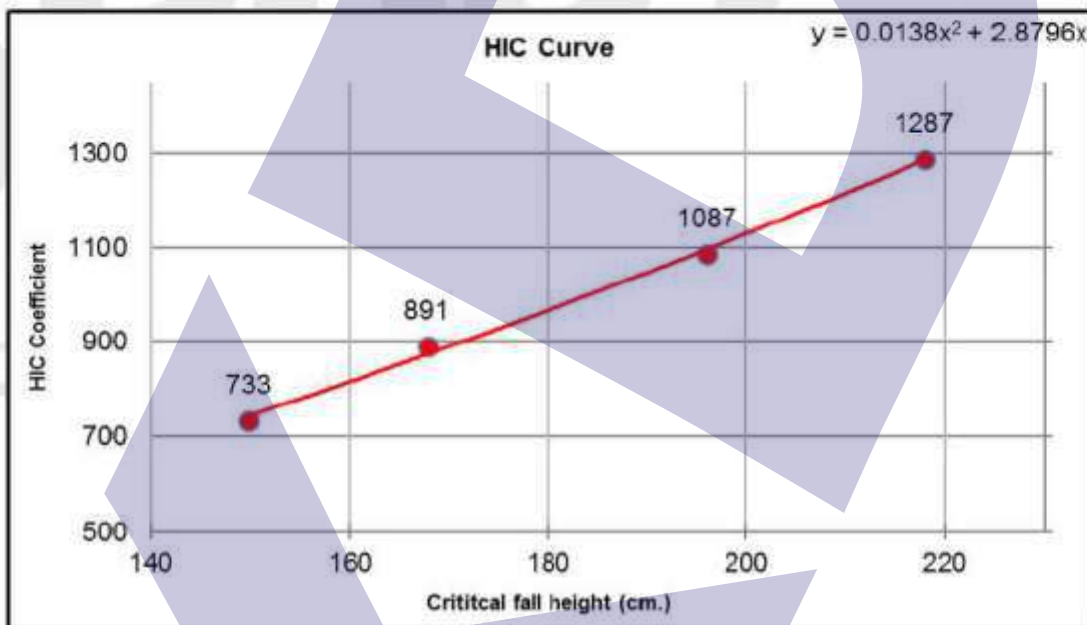
Thickness of the sample at the point "I"

100mm.

Impact No.	Time (ms)	Gmax (g)	Height (cm.)	HIC
1	8.2	121.1	150	733
2	7.9	133.8	168	891
3	7.8	145.8	196	1087
4	7.6	158	218	1287



Critical fall height of the point 1	
1.8 m	per HIC=1000
Requirement	
H _c ≥ 1.3m	



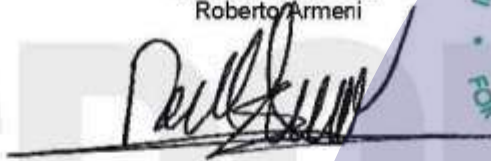
EQUIPMENT USED

UNI EN 1177:2008 Impact attenuating playground surfacing. Determination of critical fall height

Instrument	Model	Serial number	Internal code
Datalogger	117-H1	01333640/702	STR018
Metro laser	HD 150	59294569	STR067
Struttura HIC	N/A	STR172	STR172
Accelerometro triassiale	Entran	STR173	STR173
Climatizzatore	BXN0-A022 E	BX-CT0022AA001H	STR127

END OF THE TEST REPORT

Laboratory Director
Roberto Armeni



Laboratory Manager
Davide Giorgini

