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LABORATORY PERFORMANCE REPORT

In accordance with

BS EN 1177:2008 – Determination of Critical Fall Height

Sample Reference **GP35 + 25mm Shockpad (1, 2 & 3 Layers)**

Report Number **16790**

Report Status **Final**

Issue Date **11/12/2015**

Client **GreenPlay**
Meshek 81, DN. Evtach
Moshav Givati 79270
Israel

FOREWORD

1. This report has been prepared by Sports Labs limited with all reasonable skill, care and diligence within the terms of the contract with the Client and within the limitations of the resources devoted to it.
2. This report is confidential to the Client and Sports Labs Limited accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.
3. This report shall not be used for engineering or contractual purposes unless signed by the Author and the Checker and unless the report status is "Final".
4. * Not all tests carried out are within our scope of ISO 17025 Accreditation.
5. Comments and opinions are outwith the scope of our ISO 17025 accreditation



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REGIONAL LOCATIONS

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Ghent
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Seattle

Registered in
Scotland No. 186755



1.0 INTRODUCTION

We refer to the sample of artificial turf and underlying shockpads delivered to our Laboratory on 27th November 2015 to be tested in general accordance with BS EN 1177:2008 – Impact Attenuating Playground Surfacing – Determination of Critical Fall Height. The sample was filled with 15 kg/m² of kiln dried sand and tested to the Loose Particulate Method.

Prepared By Craig Melrose
Laboratory Supervisor
12/02/2015

Checked By Sean Ramsay
Laboratory Director
12/02/2015

System Name	Infill	Shockpad	Sub-Base	HIC Result
GP35 + 25mm Shockpad	15 kg/m ²	25mm Shockpad	Concrete	1.1 m
GP35 + 50mm Shockpad	15 kg/m ²	2 x 25mm Shockpad	Concrete	2.2 m
GP35 + 75mm Shockpad	15 kg/m ²	3 x 25mm Shockpad	Concrete	2.7 m

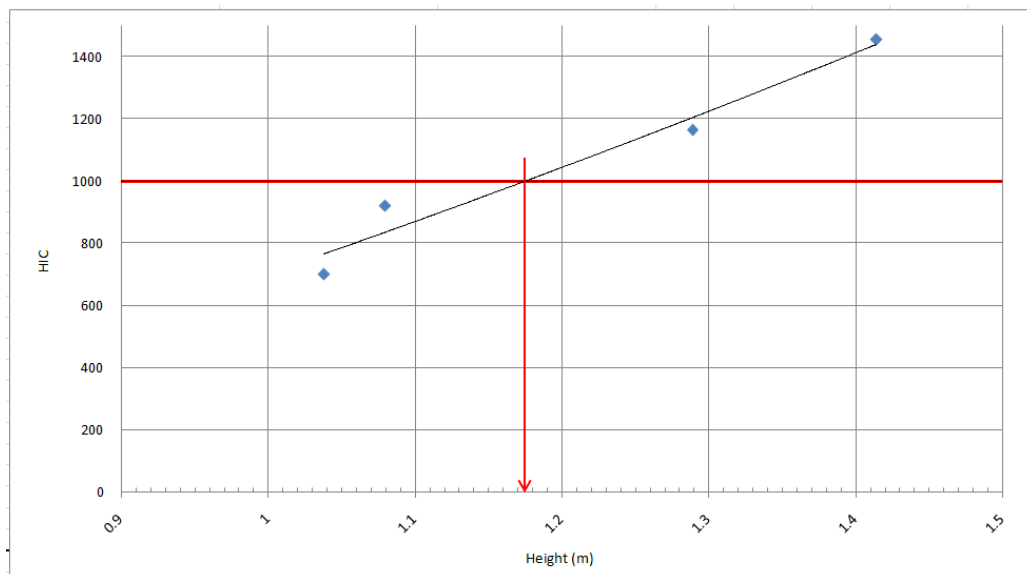
Test Condition	Dry
Surface Temperature Range (°C)	23.0 °C – 23.1 °C
Air Temperature Range (°C)	22.9 °C – 23.1 °C
Relative Humidity (%)	39 % - 40 %
Fixing Method	Self Weighted
Infill moisture content (%)	1 %



2.0 HIC (Critical Fall Height) Test Results

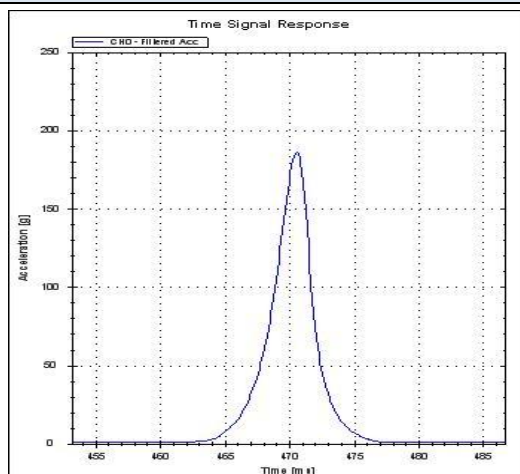
2.1 The results for **GP35 + 25mm Shockpad** on a concrete sub-base can be seen below:

	Test 1			Test 2			Test 3			Test 4		
Drop Number	1	2	3	1	2	3	1	2	3	1	2	3
Drop height	1.078	1.080	1.081	1.028	1.038	1.038	1.287	1.289	1.294	1.399	1.414	1.417
HIC Value	551	921	761	444	577	700	1130	1165	822	1071	1455	1318
Time Diff >3ms	14	13	13	15	14	13	13	12	13	13	12	12



Calculated Critical Fall Height Value

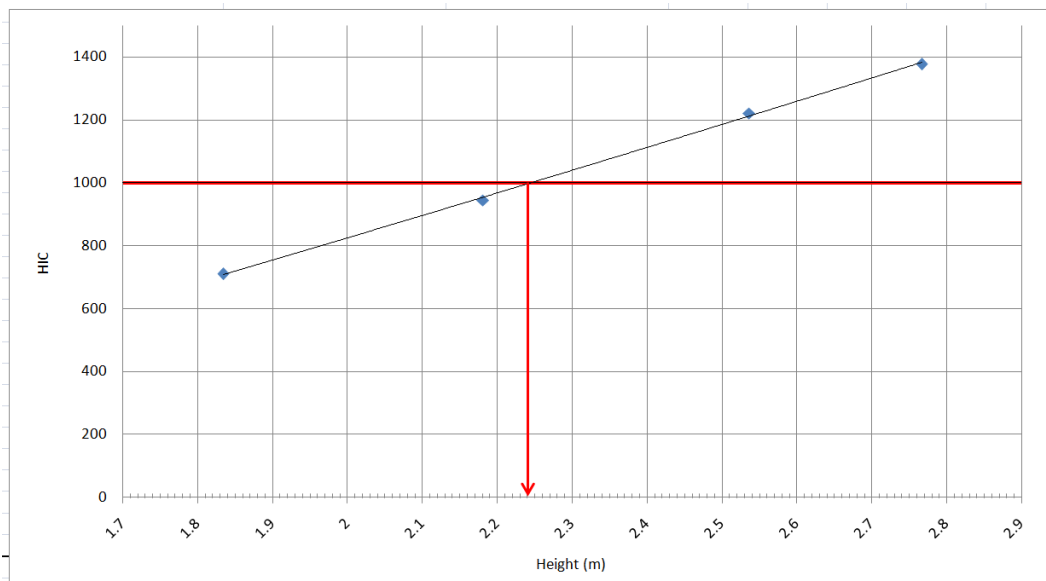
1.1 m



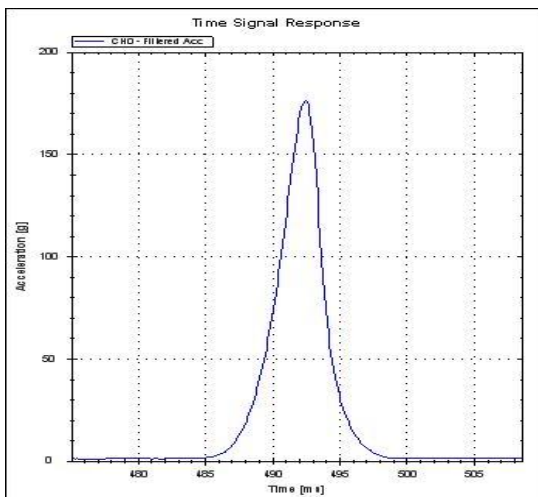


2.2 The results for **GP35 + 50mm Shockpad** on a concrete sub-base can be seen below:

	Test 1			Test 2			Test 3			Test 4		
Drop Number	1	2	3	1	2	3	1	2	3	1	2	3
Drop height	1.823	1.836	1.834	2.161	2.181	2.173	2.523	2.536	2.536	2.759	2.775	2.767
HIC Value	567	628	710	827	945	937	935	1221	1216	1096	1278	1377
Time Diff >3ms	18	18	18	17	17	17	17	17	17	17	17	17



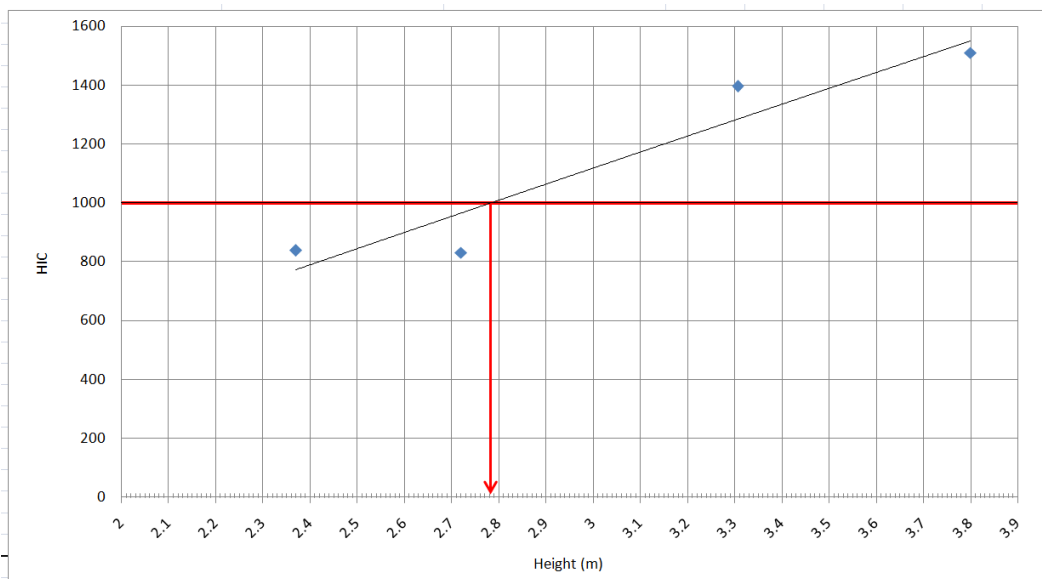
Calculated Critical Fall Height Value	2.2 m
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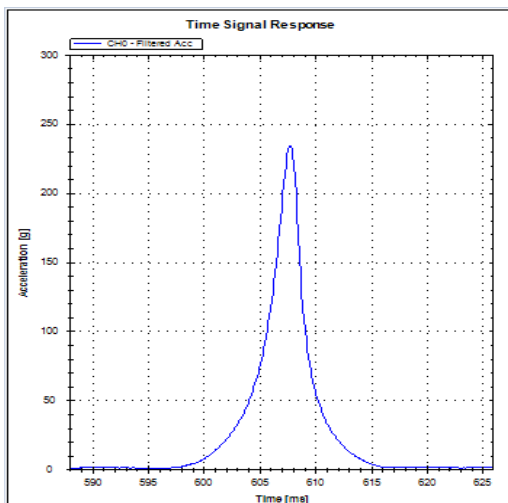


2.3 The results for **GP35 + 75mm Shockpad** on a concrete sub-base can be seen below:

	Test 1			Test 2			Test 3			Test 4		
Drop Number	1	2	3	1	2	3	1	2	3	1	2	3
Drop height	2.358	2.369	2.370	2.720	2.727	2.730	3.307	3.320	3.321	3.790	3.791	3.800
HIC Value	667	770	838	831	830	827	1396	1082	1257	1414	1374	1511
Time Diff >3ms	19	19	18	19	20	19	18	19	19	18	19	19

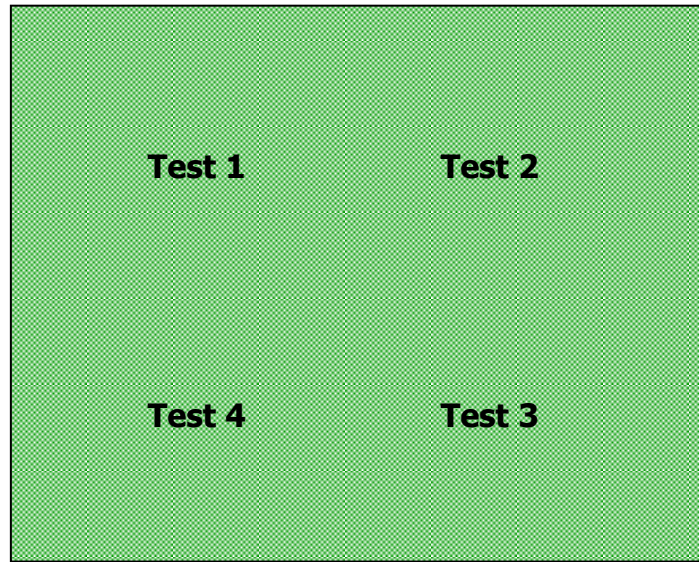


Calculated Critical Fall Height Value	2.7 m
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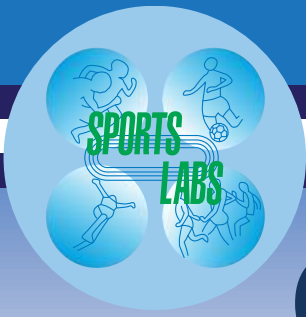




4.0 Test Locations



End of Report



CERTIFICATION

Sports Labs Ltd

Certifies that the artificial turf system

GP35

obtains the following Critical Fall Height (HIC) values

System Name	Infill	Shockpad	Sub-Base	HIC Result
GP35 + 25mm Shockpad	15 kg/m ²	25mm Shockpad	Concrete	1.1 m
GP35 + 50mm Shockpad	15 kg/m ²	2 x 25mm Shockpad	Concrete	2.2 m
GP35 + 75mm Shockpad	15 kg/m ²	3 x 25mm Shockpad	Concrete	2.7 m

When tested in accordance with the loose particulate method of BS EN 1177:2008 – Impact Attenuating Playground Surfacing – Determination of Critical Fall Height.

This certificate expires on 11th December 2015

Richard Nixon - Director

Sports Labs Ltd



CERTIFIED

16790



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