

## LABORATORY PERFORMANCE REPORT

In accordance with

### **BS EN 1177:2018 – Determination of Critical Fall Height**

**Sample Reference** **PAG 75mm EPDM Rubber Pad**

**Report Number** **18984/1154**

**Report Status** **Final**

**Issue Date** **30/08/2018**

**Client** **PAG Flooring Systems Ltd**  
**Bahnhofstrasse 26**  
**D-38176 Wendeburg**  
**Germany**

#### 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".



#### HEADQUARTERS

Sports Labs Ltd  
1 Adam Square,  
Brucefield Industry Park  
Livingston EH54 9DE  
Scotland, United Kingdom

Tel: +44(0)1506 444 755  
Email: [info@sportslabs.co.uk](mailto:info@sportslabs.co.uk)  
Web: [www.sportslabs.co.uk](http://www.sportslabs.co.uk)

#### LOCATIONS

- United States
- Morocco
- Turkey
- South Africa
- Holland
- Belgium
- Norway
- South America
- Israel



43 Timber Lane  
Woburn, Bedfordshire MK17 9PL  
England, United Kingdom  
Tel: +44 (0)845 603 5019

Email: [Nick.smith@propitch.online](mailto:Nick.smith@propitch.online)  
Web: [www.propitchsystem.co.uk](http://www.propitchsystem.co.uk)

**1.0 INTRODUCTION**

We refer to the sample of playground surfacing delivered to our Laboratory. The client requested testing to be carried out in accordance with the requirements of BS EN 1177:2018 - Determination of Critical Fall Height.

**Prepared** Craig Melrose  
**By** Laboratory Co-ordinator  
 30/08/2018



**Checked** Sean Ramsay  
**By** Laboratory Director  
 30/08/2018



TEST DETAILS	
System Name	PAG 75mm EPDM Rubber Pad
Test Condition	Dry
Surface Temperature (°C)	23.6 °C
Air Temperature (°C)	22.0 °C
Relative Humidity (%)	44 %
Fixing Method	Self Weighted
Substrate	Concrete
Shockpad type	EPDM Rubber Pad
Total Depth (mm)	75 mm
Infill Type	n/a
Infill moisture content at test (%)	n/a



## **2.0 TEST DETAILS**

- 2.1 The test specimen was prepared in accordance with the manufacturer's instructions.
- 2.2 The specimens were tested in the conditions and temperatures described in BS EN 1177: 2008 to the prefabricated tile method.

## **3.0 TESTING**

- 3.1 Determination of Critical Fall Height – BS EN 1177: 2008.

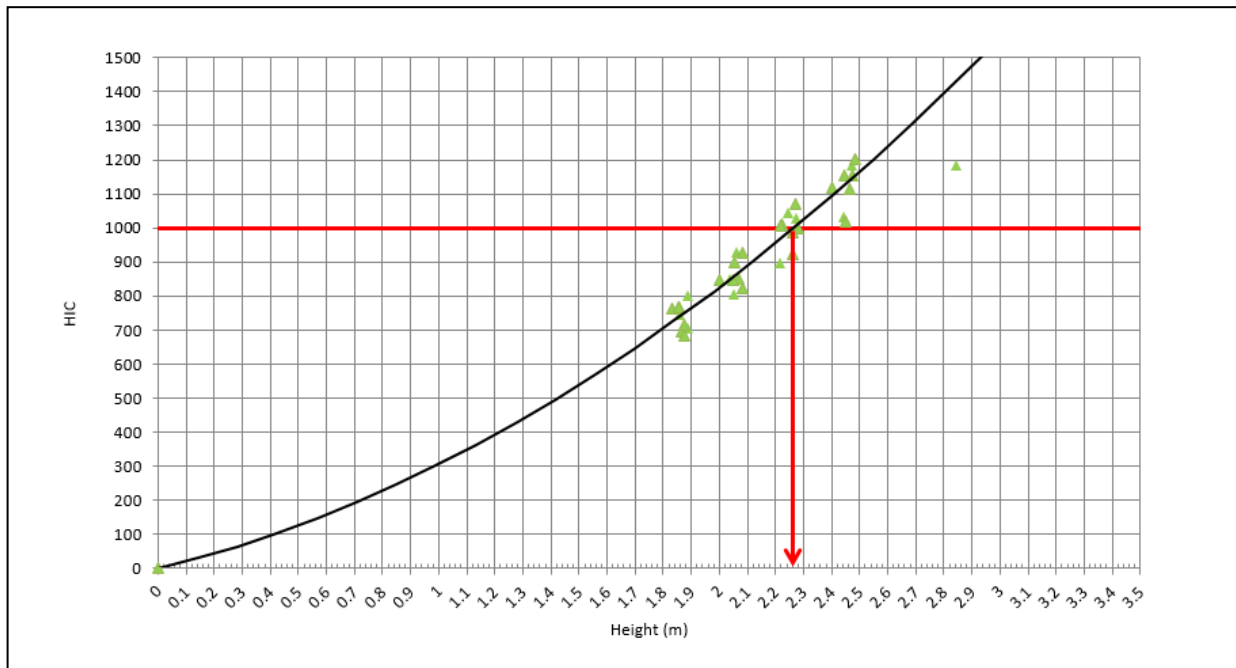
## **4.0 TEST RESULTS**

- 4.1 Detailed test results are given overleaf in tabular format.

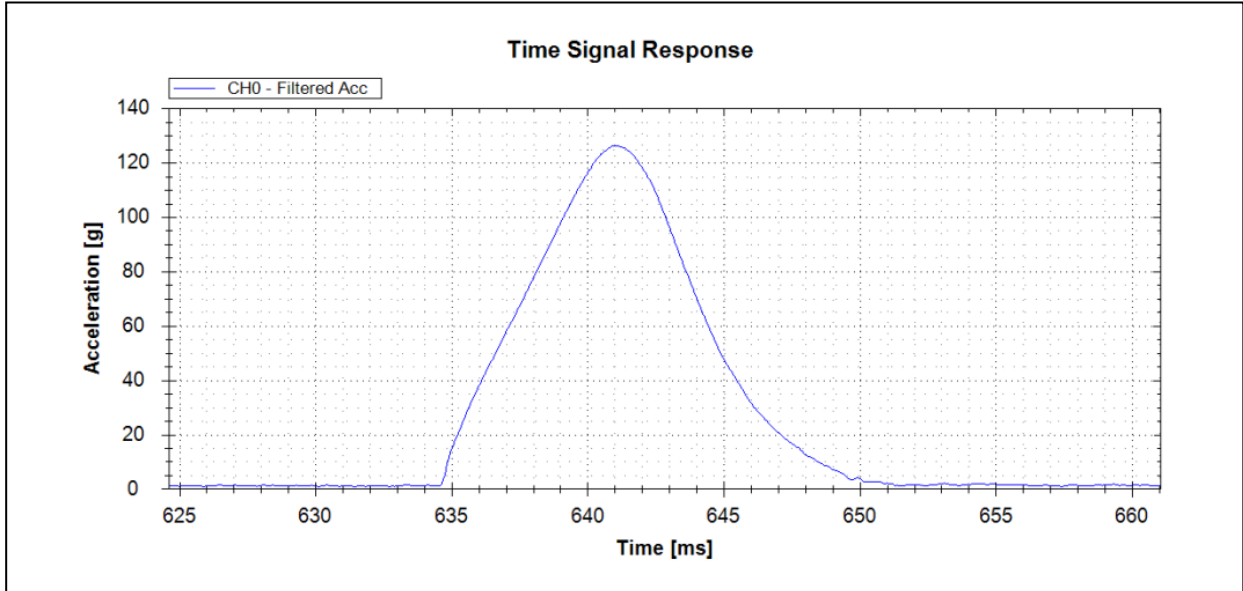


**3.0 HIC (CRITICAL FALL HEIGHT) TEST RESULTS**

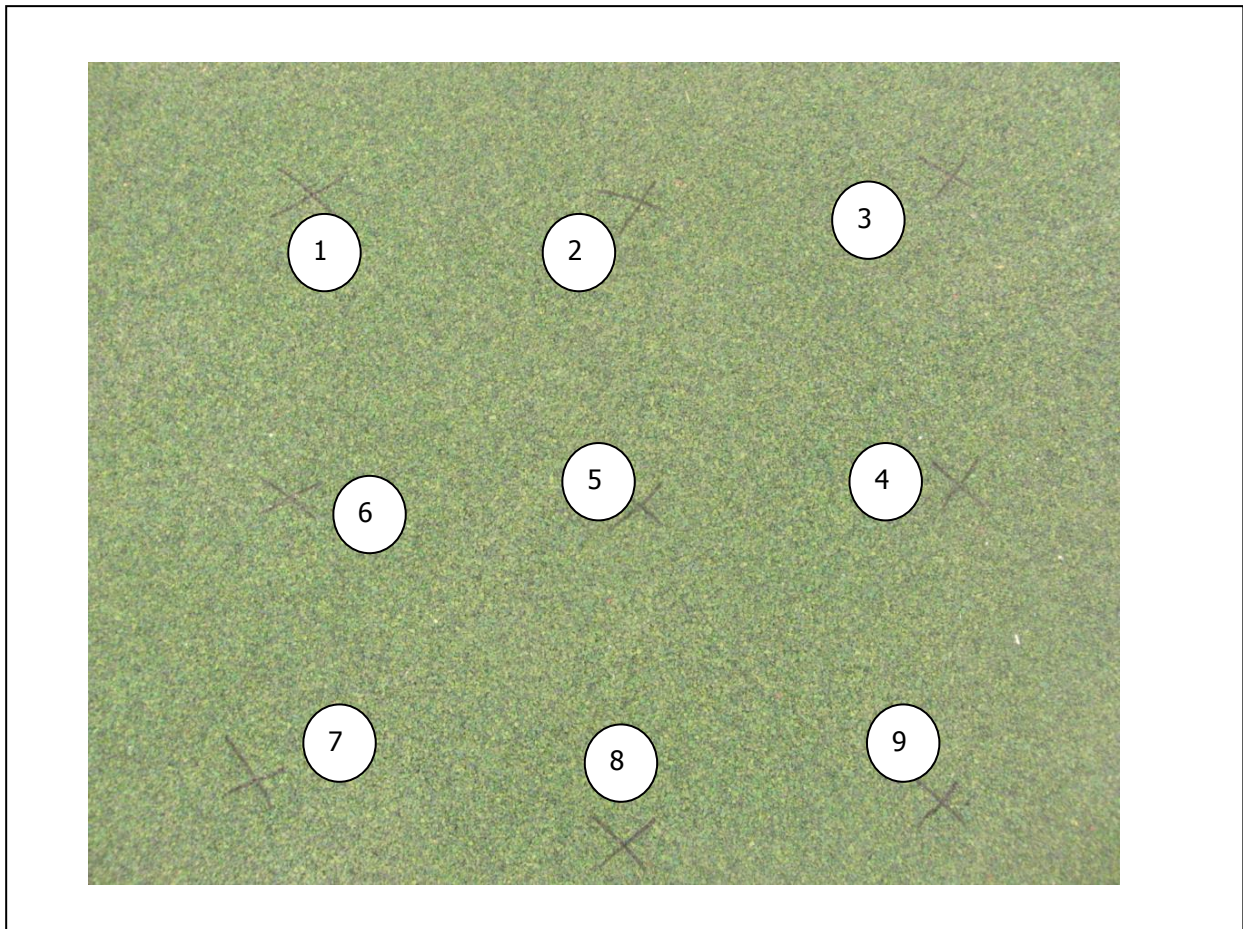
Test Results	Drop Test 1			Drop Test 2			Drop Test 3		
	Drop Height (m)	T <sub>2</sub> -T <sub>1</sub>	HIC	Drop Height (m)	T <sub>2</sub> -T <sub>1</sub>	HIC	Drop Height (m)	T <sub>2</sub> -T <sub>1</sub>	HIC
	2.4	14	1120	2.485	14	1202	2.443	14	1153
	2.225	16	1009	2.271	14	1071	2.216	14	1006
	2.000	15	847	2.085	15	928	2.054	14	899
	1.834	16	765	1.855	15	768	1.858	15	767
Test Results	Drop Test 4			Drop Test 5			Drop Test 6		
	Drop Height (m)	T <sub>2</sub> -T <sub>1</sub>	HIC	Drop Height (m)	T <sub>2</sub> -T <sub>1</sub>	HIC	Drop Height (m)	T <sub>2</sub> -T <sub>1</sub>	HIC
	2.463	15	1115	2.452	15	1017	2.473	15	1153
	2.283	13	998	2.263	16	923	2.263	15	988
	2.066	15	851	2.085	16	822	2.047	15	848
	1.866	16	694	1.875	16	683	1.877	15	716
Test Results	Drop Test 7			Drop Test 8			Drop Test 9		
	Drop Height (m)	T <sub>2</sub> -T <sub>1</sub>	HIC	Drop Height (m)	T <sub>2</sub> -T <sub>1</sub>	HIC	Drop Height (m)	T <sub>2</sub> -T <sub>1</sub>	HIC
	2.846	15	1183	2.474	14	1185	2.444	15	1031
	2.247	14	1044	2.274	15	1030	2.217	15	896
	2.063	16	928	2.039	16	851	2.052	15	807
	1.889	14	803	1.858	15	746	1.886	16	707



<b>Calculated Critical Fall Height Value</b>	<b>2.2 m</b>
--	--------------



#### 4.0 SURFACE PHOTOGRAPH/TEST LOCATIONS





5.0 LAYER PHOTOGRAPH



**End of Report**