

## LABORATORY PERFORMANCE REPORT

In accordance with

### BS EN 1177:2018 – Method 1\* – Determination of Impact Attenuation

**Sample Reference** Winner Velour Summer Green + Trocellen 40mm

**Report Number** 19578/4082

**Report Status** Final

**Issue Date** 12/06/2019

**Client** **Playrite**  
**Wellington Mills**  
**Liversedge**  
**West Yorkshire**  
**WF15 7FH**

#### 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. Comments and opinions are outwith the scope of our ISO 17025 accreditation.



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#### REGIONAL LOCATIONS

- USA
- Morocco
- Turkey
- South Africa
- Netherlands
- Belgium
- Norway
- Israel



## 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 Impact Attenuation.

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12/06/2019

**Checked By** Sean Ramsay  
Laboratory Director  
12/06/2019

TEST DETAILS	
System Name	Winner Velour Summer Green + Trocellen 40mm
Test Condition	Dry
Surface Temperature (°C)	23.5 °C
Air Temperature (°C)	22.0 °C
Relative Humidity (%)	42 %
Infill Rates (kg/m <sup>2</sup> )	12 Kg/m <sup>2</sup>
Fixing Method	Self Weighted
Test Sample Dimension	1.0m x 1.0m
Substrate	Concrete
Shockpad	2x Trocellen 3020 XC

## 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: 2018\* to Method 1 for surfacing intended to be manufactured on site.



**The results contained within this report apply to the sample provided and test conditions detailed. Whilst the methods described in BS EN 1177:2018 can be used to assess the impact attenuation performance of surfaces, attention of users is drawn that the behaviour of some materials can be highly variable and dependent on prevailing test conditions and that test results will likely vary over time or with climatic conditions.**

### **3.0 TESTING**

3.1 Determination of Impact Attenuation – BS EN 1177: 2018\*.

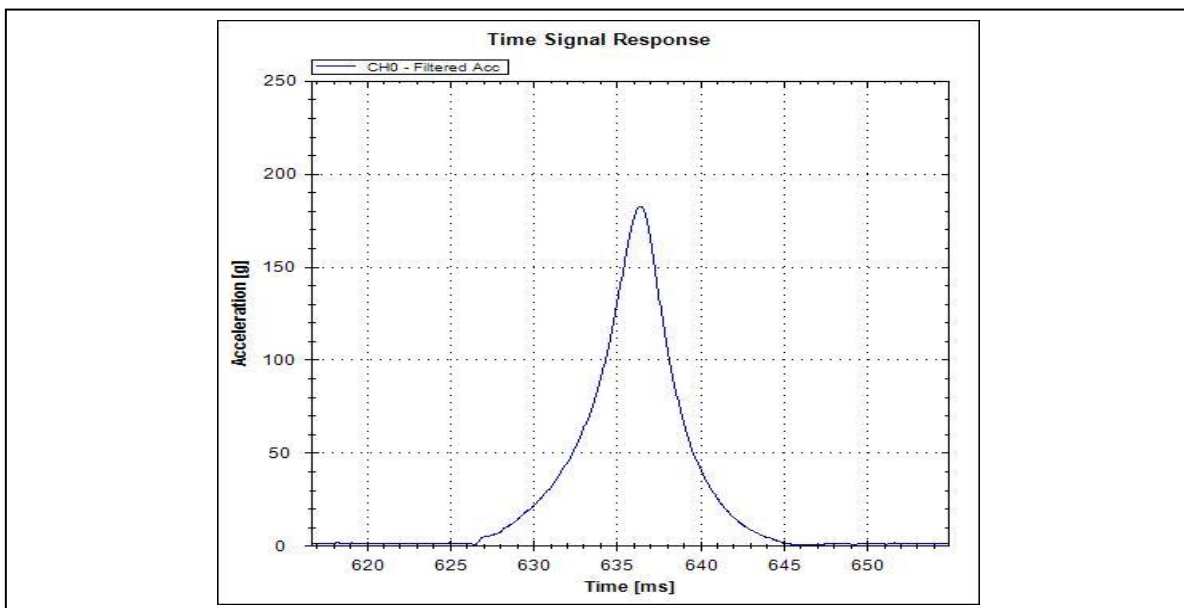
### **4.0 TEST RESULTS**

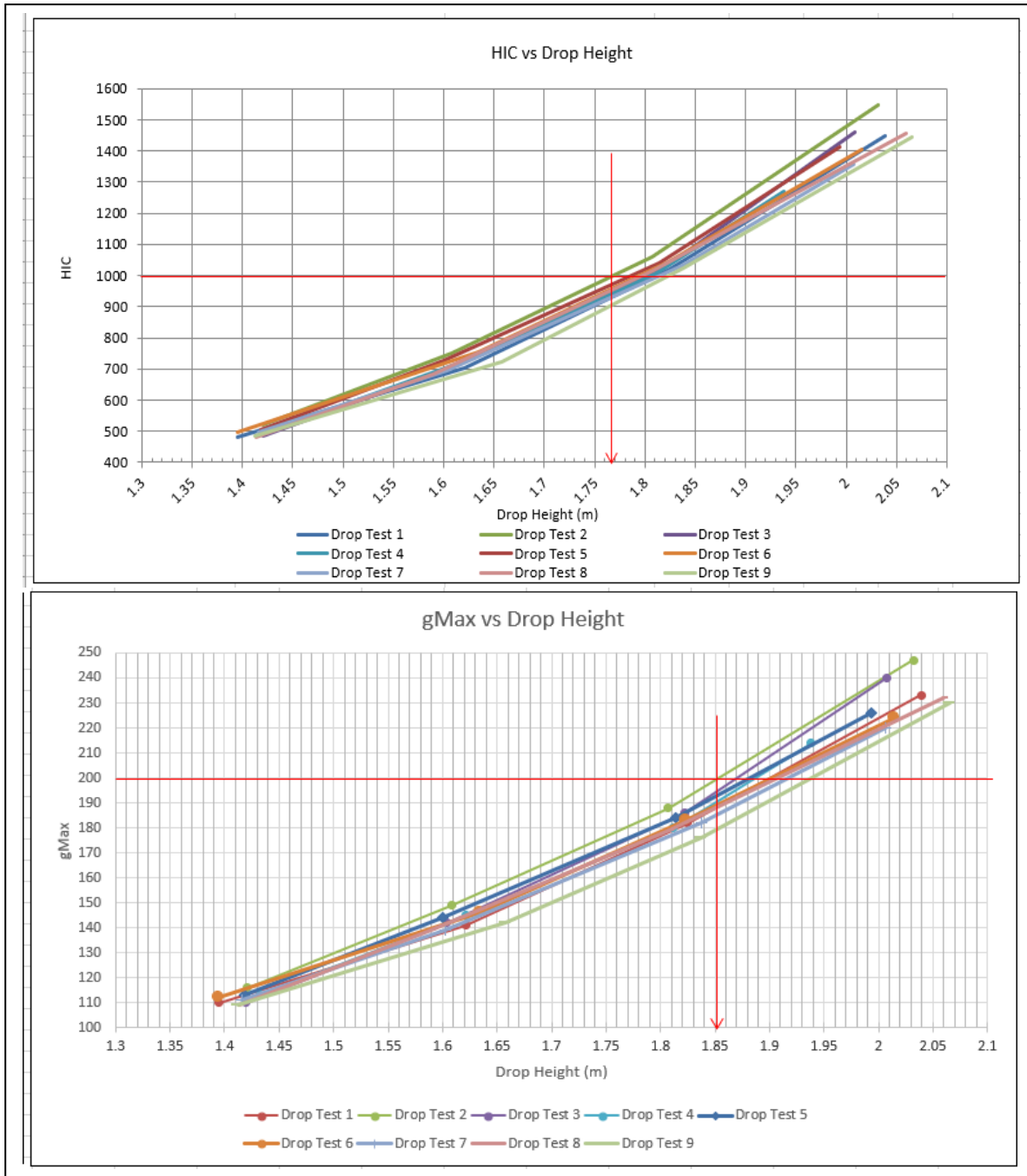
4.1 Detailed test results are given overleaf in tabular format.



5.0 HIC (CRITICAL FALL HEIGHT) TEST RESULTS

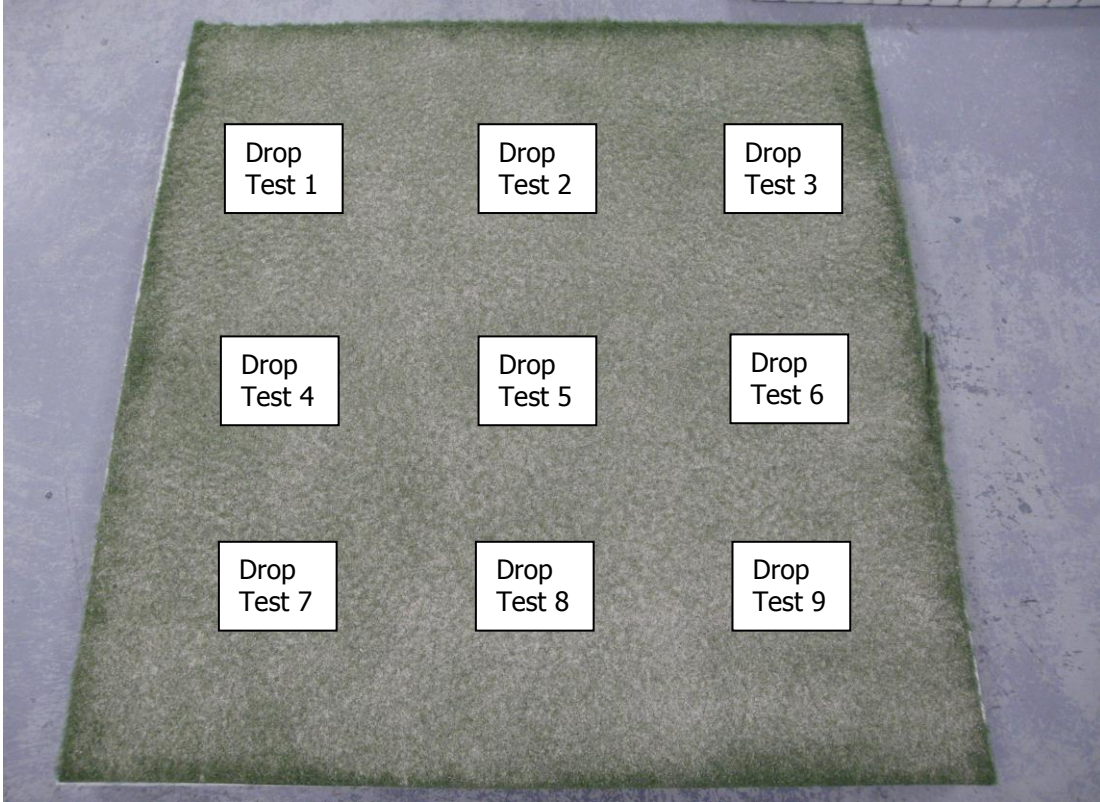
Drop Test 1			Drop Test 2			Drop Test 3		
Drop Height (m)	HIC	gMAX	Drop Height (m)	HIC	gMAX	Drop Height (m)	HIC	gMAX
1.395	480	110	1.421	519	116	1.420	485	110
1.621	702	141	1.608	751	149	1.604	701	142
1.825	1020	182	1.807	1061	188	1.822	1031	186
2.039	1450	233	2.032	1547	247	2.008	1460	240
Drop Test 4			Drop Test 5			Drop Test 6		
Drop Height (m)	HIC	gMAX	Drop Height (m)	HIC	gMAX	Drop Height (m)	HIC	gMAX
1.432	503	113	1.418	506	113	1.395	497	112
1.622	728	145	1.600	725	144	1.635	754	146
1.812	1007	180	1.814	1040	184	1.823	1045	183
1.938	1269	214	1.993	1413	226	2.015	1405	224
Drop Test 7			Drop Test 8			Drop Test 9		
Drop Height (m)	HIC	gMAX	Drop Height (m)	HIC	gMAX	Drop Height (m)	HIC	gMAX
1.416	495	111	1.414	481	109	1.412	485	109
1.603	696	139	1.590	683	139	1.658	724	142
1.837	1030	182	1.808	1018	179	1.838	1024	176
2.007	1357	220	2.059	1455	232	2.065	1446	230





<p><b>Calculated Critical Fall Height Value</b> uncertainty of <math>\pm 7\%</math></p>	<p><b>1.76 m</b></p>
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6.0 SURFACE PHOTOGRAPH/TEST LOCATIONS



**End of Report**