

LABORATORY PERFORMANCE REPORT

In accordance with

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

Sample Reference Winner Velour Summer Green + Trocellen 30mm

Report Number 19578/4081

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 30mm |
| Test Condition | Dry |
| Surface Temperature (°C) | 23.5 °C |
| Air Temperature (°C) | 22.0 °C |
| Relative Humidity (%) | 42 % |
| Infill Rates (kg/m ²) | 12 kg/m ² |
| Fixing Method | Self Weighted |
| Test Sample Dimension | 1.0m x 1.0m |
| Substrate | Concrete |
| Shockpad | Trocellen 3030XC NW |

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 consisting of more than one component.



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*.

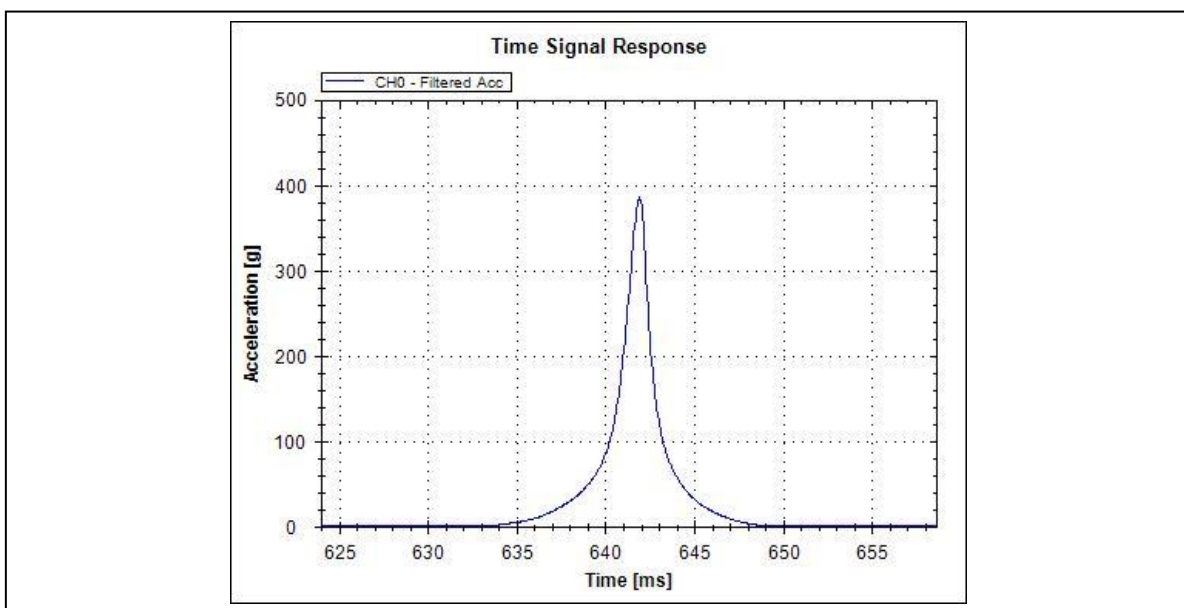
4.0 TEST RESULTS

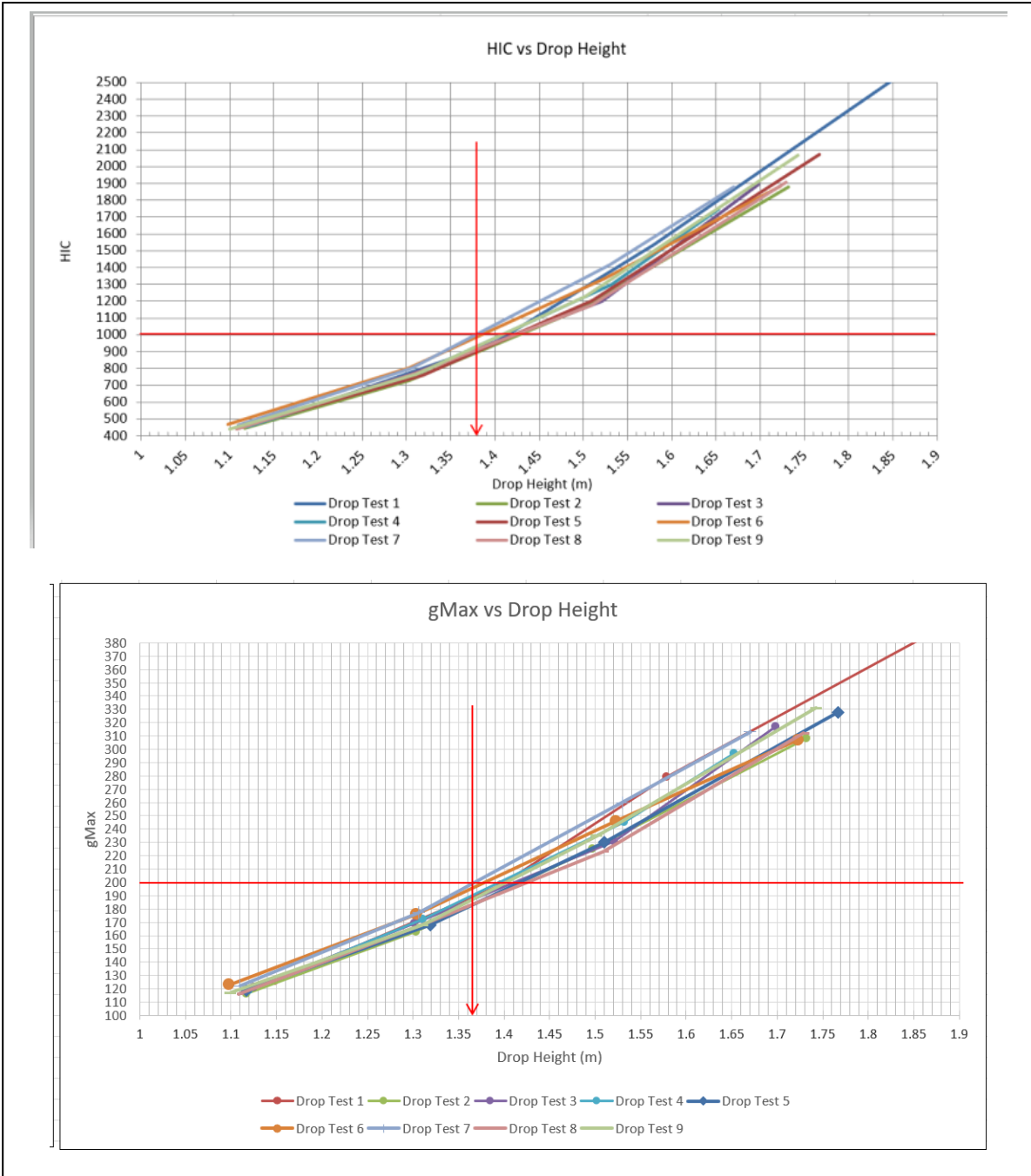
4.1 Detailed test results are given overleaf in tabular format.



5.0 HIC (CRITICAL FALL HEIGHT) TEST RESULTS

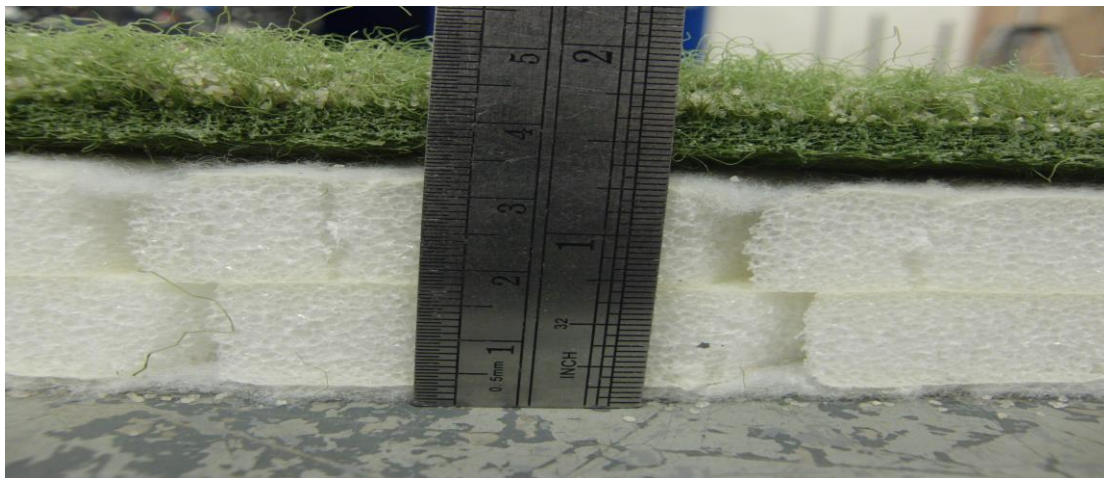
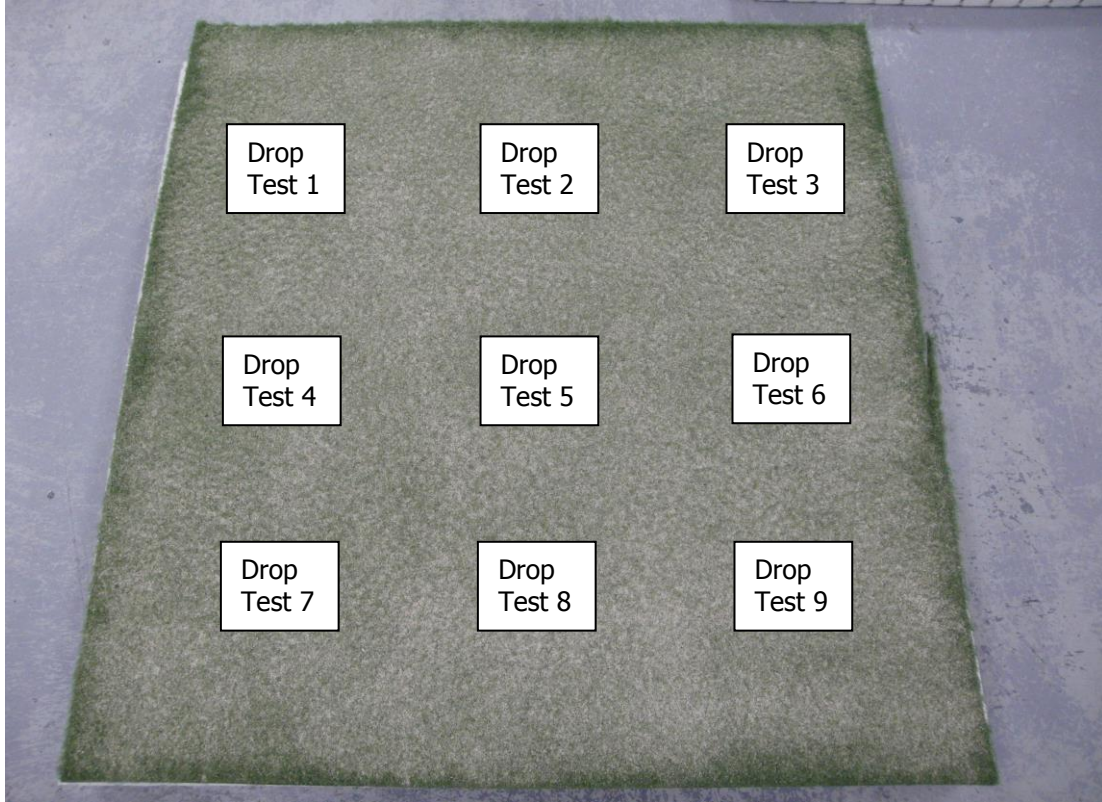
| Drop Test 1 | | | Drop Test 2 | | | Drop Test 3 | | |
|-----------------|------|------|-----------------|------|------|-----------------|------|------|
| Drop Height (m) | HIC | gMAX | Drop Height (m) | HIC | gMAX | Drop Height (m) | HIC | gMAX |
| 1.148 | 494 | 126 | 1.117 | 445 | 116 | 1.125 | 465 | 121 |
| 1.397 | 946 | 198 | 1.303 | 728 | 163 | 1.302 | 760 | 169 |
| 1.579 | 1536 | 279 | 1.497 | 1152 | 225 | 1.521 | 1200 | 231 |
| 1.868 | 2582 | 387 | 1.732 | 1879 | 308 | 1.698 | 1894 | 317 |
| Drop Test 4 | | | Drop Test 5 | | | Drop Test 6 | | |
| Drop Height (m) | HIC | gMAX | Drop Height (m) | HIC | gMAX | Drop Height (m) | HIC | gMAX |
| 1.12 | 456 | 119 | 1.117 | 457 | 119 | 1.098 | 470 | 123 |
| 1.311 | 767 | 172 | 1.319 | 759 | 168 | 1.303 | 802 | 176 |
| 1.532 | 1299 | 245 | 1.510 | 1203 | 230 | 1.523 | 1330 | 246 |
| 1.653 | 1747 | 297 | 1.767 | 2071 | 328 | 1.723 | 1884 | 307 |
| Drop Test 7 | | | Drop Test 8 | | | Drop Test 9 | | |
| Drop Height (m) | HIC | gMAX | Drop Height (m) | HIC | gMAX | Drop Height (m) | HIC | gMAX |
| 1.110 | 465 | 122 | 1.108 | 441 | 116 | 1.100 | 441 | 117 |
| 1.306 | 803 | 177 | 1.310 | 769 | 168 | 1.311 | 764 | 168 |
| 1.530 | 1418 | 260 | 1.509 | 1175 | 223 | 1.502 | 1228 | 235 |
| 1.670 | 1879 | 313 | 1.729 | 1909 | 312 | 1.743 | 2069 | 331 |





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|---|----------------------|
| <p>Calculated Critical Fall Height Value uncertainty of $\pm 7\%$</p> | <p>1.37 m</p> |
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6.0 SURFACE PHOTOGRAPH/TEST LOCATIONS



End of Report