LABORATORY PERFORMANCE REPORT

In accordance with

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

Sample Reference	**Winner Velour Summer Green + Trocellen 60mm**
Report Number	**19578/4084**
Report Status	**Final**
Issue Date	**12/06/2019**
Client	**Playrite** **Wellington Mills** **Liversedge** **West Yorkshire** **WF15 7FH**

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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Laboratory Co-ordinator
12/06/2019

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12/06/2019

TEST DETAILS	
System Name	Winner Velour Summer Green + Trocellen 60mm
Test Condition	Dry
Surface Temperature (°C)	23.5 °C
Air Temperature (°C)	22.0 °C
Relative Humidity (%)	42 %
Infill Rates (kg/m²)	12 Kg/m²
Fixing Method	Self Weighted
Test Sample Dimension	1.0m x 1.0m
Substrate	Concrete
Shockpad	2 x 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 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.
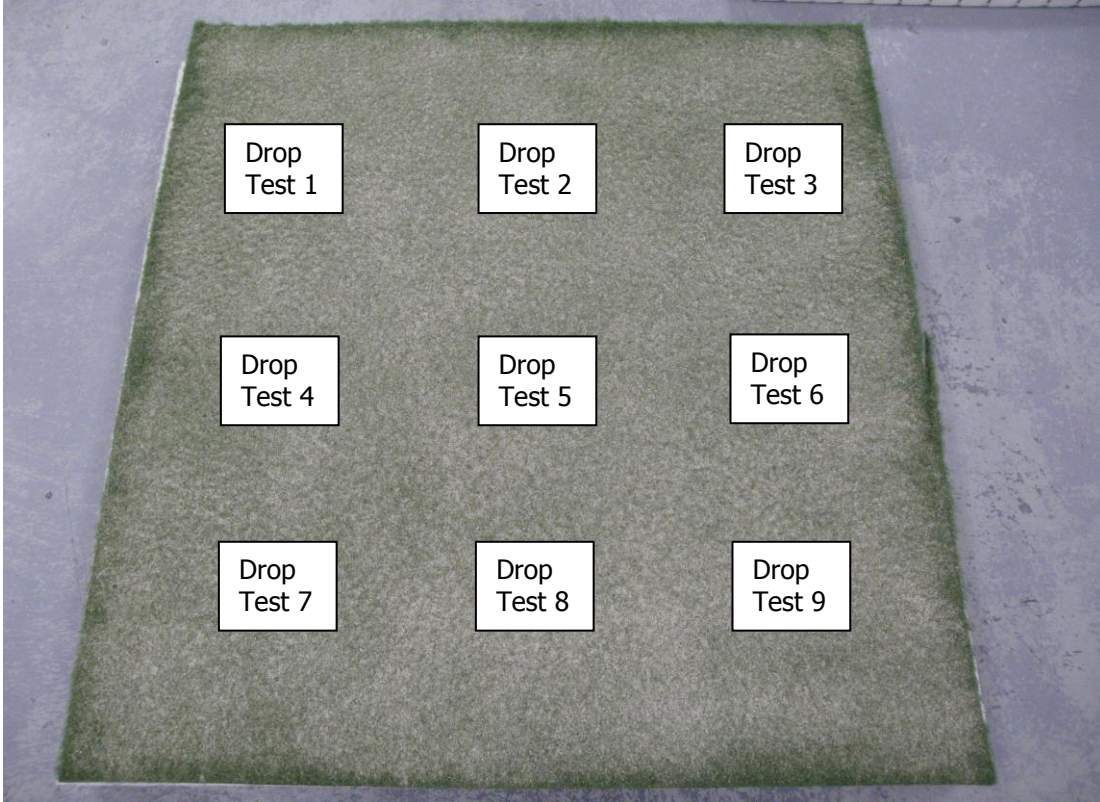
5.0   HIC (CRITICAL FALL HEIGHT) TEST RESULTS

Drop Test 1			Drop Test 2			Drop Test 3		
Drop Height (m)	HIC	gMAX	Drop Height (m)	HIC	gMAX	Drop Height (m)	HIC	gMAX
2.468	662	111	2.730	780	120	2.746	774	118
2.800	911	138	2.820	876	130	2.858	893	131
2.923	1018	142	2.950	1019	144	2.953	1008	142
3.020	1101	156	3.011	1103	152	3.012	1081	151
Drop Test 4			Drop Test 5			Drop Test 6		
Drop Height (m)	HIC	gMAX	Drop Height (m)	HIC	gMAX	Drop Height (m)	HIC	gMAX
2.746	823	123	2.703	821	123	2.714	792	122
2.860	957	137	2.851	995	140	2.850	963	142
2.965	1077	149	2.956	1083	148	2.901	1045	151
3.010	1152	157	3.011	1198	158	3.004	1160	161
Drop Test 7			Drop Test 8			Drop Test 9		
Drop Height (m)	HIC	gMAX	Drop Height (m)	HIC	gMAX	Drop Height (m)	HIC	gMAX
2.739	837	128	2.744	792	121	2.749	776	119
2.821	962	145	2.854	938	139	2.848	921	137
2.929	1116	163	2.911	1013	145	2.923	1027	148
3.015	1261	179	3.017	1149	158	3.018	1155	162

Time Signal Response

HIC vs Drop Height

gMax vs Drop Height
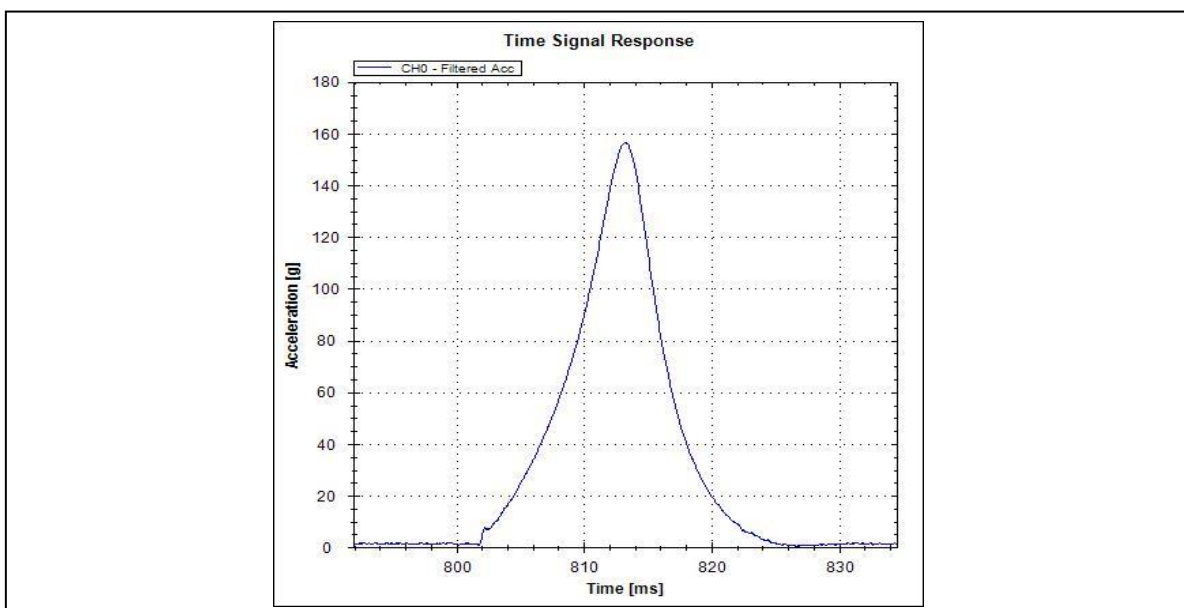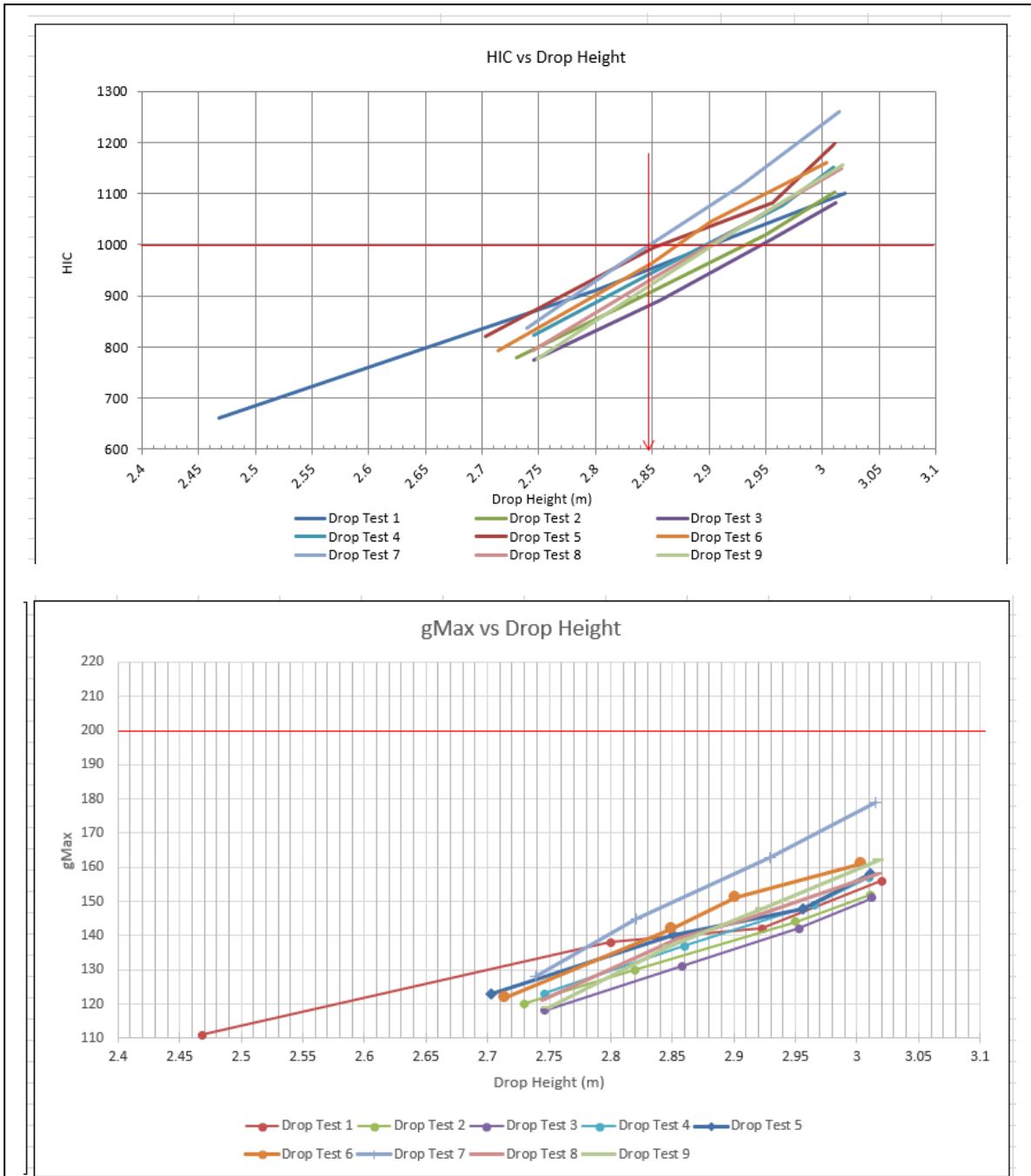
Calculated Critical Fall Height Value uncertainty of ±7 %	2.84 m

6.0   SURFACE PHOTOGRAPH/TEST LOCATIONS

End of Report