Report Number: SP1977 **Project Reference:** CJS Wood Mulch

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TEST REPORT SP1977

DETERMINATION OF CRITICAL FALL HEIGHT (HIC) PROPERTIES TO EN1177:2018 :

"Wood Mulch at Various Thicknesses"

Applicant:

CJ Sheeran
Shannon Street,
Mountrath
Co. Laois, Ireland

- *This report has been prepared by Surface Performance Ltd with all reasonable care, skill and diligence within the terms of the contract with the client.*

- *This report is confidential to the client and Surface Performance Ltd accept no responsibility towards any third parties to whom this report is made available to. Any such party relies upon this report at their own risk.*

- *This report shall not be used for contractual purposes unless signed by the Laboratory Manager*

PREPARED BY	SIGNATURE	ISSUE DATE	REPORT NUMBER
Callum Reid (Laboratory Manager)		02.07.2019	1977

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1.0 CONTENTS

2.0 SUMMARY OF TESTING (Laboratory Tests)

** Denotes a test outside the scope of ISO 17025 accreditation*

To be read in conjunction with this report

2.1 Determination of Critical Fall Height (HIC) in accordance with EN1177:2018. Clause 6.2.4.5 "*Testing loose particulate material".*

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3.0 INTRODUCTION

Surface Performance Ltd carried out testing of the determination of the critical fall height (HIC) to a sample of wood mulch specified at three thicknesses according to the client's requirements. A 1.0m x 1.0m test frame was filled with the product at 100mm, 200mm and 300mm thickness and tested accordingly.

The sample was received at the laboratory on 25th June 2019.

The sample was identified with Surface Performance Ltd as SP1977.

The samples were prepared and conditioned for 24 hours prior to all testing in accordance with ISO 291 Class 2 (non tropical countries).

This test report only refers to the sample stated on Page 1.

4.0 TEST PROGRAMME

The determination of the HIC was conducted as described in EN 1177:2018.

The following test systems were tested:

System 1 100mm Wood mulch x 1.0m x 1.0m frame filled and compacted in accordance with Annex E

System 2 200mm Wood mulch x 1.0m x 1.0m frame filled and compacted in accordance with Annex E

System 3 300mm Wood mulch x 1.0m x 1.0m frame filled and compacted in accordance with Annex E

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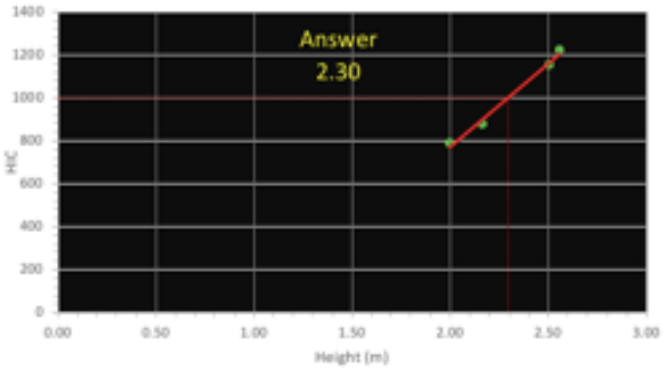
4.0 TEST RESULTS

4.1 System 1: 100mm Depth of Wood Mulch

Surface Temp °C	23.2	Air Temp °C	24.0

Test Position	Fall Height (m)	Result (HIC)	CFH (m)
1	2.00	785	**2.30**
2	2.17	877	
3	2.51	1151	
4	2.56	1219	



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4.2 System 2: 200mm Depth of Wood Mulch

Surface Temp °C	23.5	Air Temp °C	24.1

Test Position	Fall Height (m)	Result (HIC)	CFH (m)
1	3.36	748	**> 3.36**
2	System exceeded maximum test height possible		
3			
4			

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4.3 System 3: 300mm Depth of Wood Mulch

Surface Temp °C	23.6	Air Temp °C	24.0

Test Position	Fall Height (m)	Result (HIC)	CFH (m)
1	3.36	367	**> 3.36 m**
2	System exceeded maximum test height possible		
3			
4			

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5.0 Summary of Results

Variant	CFH (m)
100mm Depth Wood Mulch	2.30
200mm Depth Wood Mulch	> 3.36
300mm Depth Wood Mulch	> 3.36

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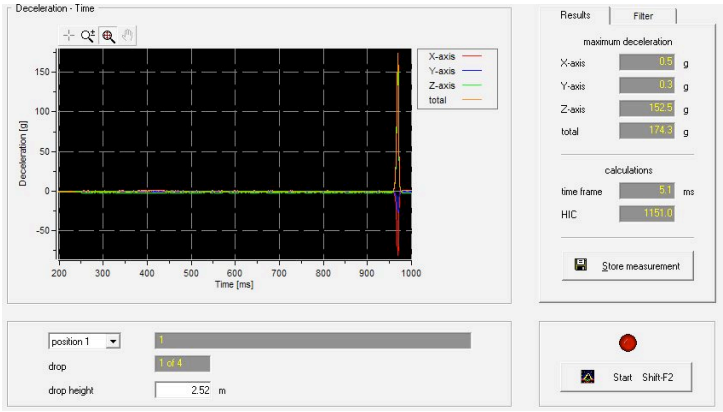
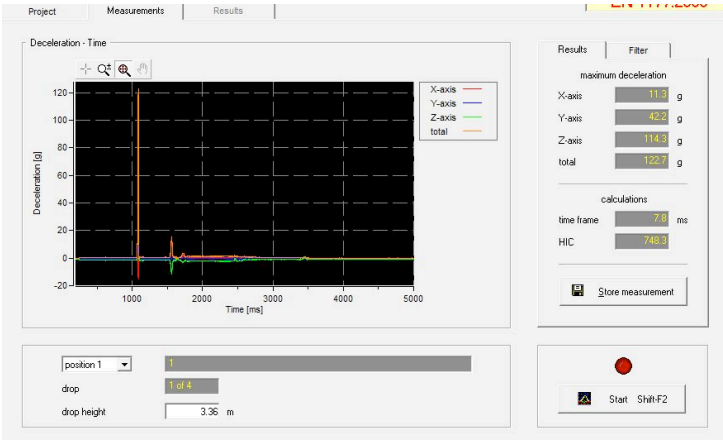
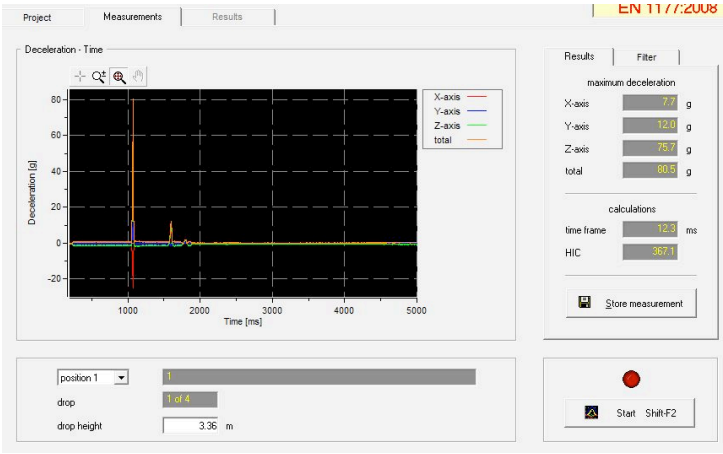
6.0 Time/Acceleration Curves

	**100 mm Wood Mulch Depth at over 1000 HIC**
	**200 mm Wood Mulch Depth unable to achieve 1000 HIC**
	**300 mm Wood Mulch Depth unable to achieve 1000 HIC**

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END OF TEST REPORT