



## TEST REPORT

**Ever-Green Landscape Nursery and Supply, Inc.**  
2762 North Center Point Road  
Cedar Rapids, IA 52411

**DTL REPORT NO.** 5128015-4  
**REPORT DATE** 2/3/06  
**RECEIVE DATE** 1/5/06

**ATTN: Mr. Dale Peterson**

### SAMPLE DESCRIPTION

Ever-Green Landscape Nursery and Supply, Inc. submitted approximately twelve (12) cubic feet of loose-fill wood material for testing, identified by Ever-Green Landscape Nursery and Supply, Inc. as Playmate™ Play Area Wood Chips™. Testing was performed on 1/31/06.

### WORK REQUESTED/TEST SPECIFICATIONS

To perform head impact testing to determine the maximum critical fall height of a six (6) inch compacted depth of Playmate™ Play Area Wood Chips™.

### REFERENCE DOCUMENTS

ASTM F1292-04- Impact Attenuation of Surface Systems Under and Around Playground Equipment

### CONCLUSION

The maximum critical fall height of a six (6) inch compacted depth of Playmate™ Play Area Wood Chips™ was determined to exceed Detroit Testing Laboratory's maximum test parameters of thirteen (13) feet. This report includes data reduction for impacts performed at eleven (11), twelve (12) and thirteen (13) feet.

The material thickness indicated has met HIC (Head Impact Criteria) and G-Max requirements at the fall height indicated per ASTM F1292-04. The results reported herein reflect the performance of this playground surface system at the time of testing and at the temperatures indicated. Performance will vary with temperature, moisture content and other factors.

## TEST RESULTS

The sample material, Playmate™ Play Area Wood Chips™, was tested to determine the maximum critical fall height of a six (6) inch compacted depth at three (3) temperatures (-6° C, 23° C and 49° C). The sample has met the requirements of ASTM F1292-04 at Detroit Testing Laboratory's maximum test parameters of thirteen (13) feet.

Consequently, DTL reports impact data at eleven (11), twelve (12) and thirteen (13) feet. An impact test consists of three (3) impacts at the same site at each drop height. Calculate the average of the second and third impacts to determine the HIC and G-max acceleration values.

- For impact data, please refer to Attachment G (2 pages).
- For impact plots, please refer to Attachment H (27 pages).

## REQUIREMENTS

ASTM F1292-04 - Using an average of the last two (2) of three (3) drops. No value shall exceed 200 G-Max or 1000 HIC.

## REMARKS

This report details the test method and results of tests performed on Playmate™ Play Area Wood Chips™, provided by Ever-Green Landscape Nursery and Supply, Inc. The Product is to be used under and around playground equipment as an impact attenuation system. The intent of the test was to evaluate the force attenuation properties of the product in accordance with ASTM F1292-04. The critical fall height of a playground surfacing material determined under laboratory conditions does not account for factors which may influence the actual performance of the installed surfacing material. Meeting the requirements of ASTM F1292-04 does not imply that an injury cannot be incurred.

Per ASTM F1292-04, Section 1.12, "This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory requirements prior to use.

## TEST EQUIPMENT

**Detroit Testing Laboratory, Inc.'s calibration system meets the requirements of ISO 17025:1999.**

- DTL H.I.C. Computer, ID No. 10926, Verified Prior to Use
- DTL Impact Tower, Guided Wire, ID No. 08704, No Calibration Required
- PCB Piezotronic Accelerometer, Tri-Axial, ID No. 10589-Z, Calibrated to 10/10/06

**TEST EQUIPMENT (Continued)**

- Omega Digital Thermometer, Model HHII, ID No. 10633, Calibrated to 3/4/06
- Omega Penetration Probe, Thermocouple, Type K, Model No. 88311, ID No. 10634, Calibrated to 3/4/06
- Hemispherical Missile, Per Figure 1, ASTM F1292-04, ID No. 10640, Calibrated to 2/25/06
- Unimeasure Micro P Display, Model MR-0-JR-2MV13, ID No. 10613, Calibrated to 1/31/07
- Sensotec Pancake Load Cell, Model BL114DL30A, ID No. 10616, Calibrated to 1/31/07
- Thermotron Environmental Chamber, ID No. EC034 , Calibrated to 9/12/06
- Thermotron Environmental Chamber, ID No. EC046 , Calibrated to 8/20/06

**SAMPLE DISPOSITION**

The sample material will be retained by DTL for thirty (30) days, then disposed of at the discretion of DTL unless otherwise requested Ever-Green Landscape Nursery and Supply, Inc.

Reported

**DETROIT TESTING LABORATORY, INC,**



David  
Splane

Certification Program Coordinator



Keith G. Shelton  
Certification Program Manager

DS/KGS/dd

Enclosure: Terms and Conditions