

DTL REPORT NUMBER
9038006



Since 1903

DETROIT TESTING LABORATORY, INC.

PREPARED FOR
ECORE INTERNATIONAL
715 FOUNTAIN AVENUE
LANCASTER, PA 17801

ATTENTION
MR. GREG BACHMAN

CUSTOMER PURCHASE ORDER NUMBER
PO2090803

REPORT DATE
April 20, 2009

DTL

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REPORTED / APPROVED BY:

DETROIT TESTING LABORATORY, INC.

A handwritten signature in black ink, appearing to read 'David Splane', is positioned above the printed name.

Reported by: David Splane
CERTIFICATION PROGRAMS COORDINATOR

A handwritten signature in black ink, appearing to read 'Keith G. Shelton', is positioned above the printed name.

Approved by: Keith G. Shelton
CERTIFICATION PROGRAMS MANAGER



PURPOSE

The purpose of this test report is to present the test results obtained during the performance of a test program. This report includes a brief description of the samples presented for test, a list of the documents presented as test instructions, and a summary of the testing performed and the results obtained. Applicable requirements and conclusions are based on the criteria provided by our client, or as specified in the reference document(s).

WORK REQUESTED / REFERENCE DOCUMENT(s)

ASTM F1951-08 – Determination of Accessibility of Surface Systems Under and Around Playground Equipment.

TEST SEQUENCE

1. Wheelchair work measurement method – straight propulsion with no material on a flat surface with a grade of 7.1%.
2. Wheelchair work measurement method – straight propulsion with material and no grade.
3. Wheelchair work measurement method – turning 90° with no material on a flat surface with a grade of 7.1%.
4. Wheelchair work measurement method – turning 90° with material and no grade.

CONCLUSION

The sample material met the requirements specified in ASTM F1951-08.

Final post test performance and sample evaluation shall be performed by Ecore International.

SAMPLE DESCRIPTION

Ecore International submitted eight, (8), 24" X 24" X 2 ½ " thick surfacing tiles identified by Ecore International as 2 ½ " Playguard Tile. Testing was performed on 3/26/2009.



TESTING PERFORMED

SURFACE ACCESSIBILITY

Procedure

The sample material was placed into DTL's accessibility test fixture and tested by propelling the wheelchair with four (4) even pushes across the material 6.56 feet within eight (8) seconds. This process was repeated five (5) times for each test (straight and 90° turn propulsions).

Requirements

The average work per foot in pound force-inch values for straight propulsion and for turning with material should be less than the average work per foot values for straight and turning on flat surface with a grade of 7.1%.

SAMPLE DISPOSITION

The sample material will be retained for fifteen (15) days, then, disposed of at the discretion of DTL unless otherwise requested.



TEST EQUIPMENT

Detroit Testing Laboratory, Inc.'s calibration system meets the requirements of ISO 17025:2005. For additional information regarding our scope of accreditation, please visit our website at www.dtl-inc.com.

| DTL ID | Description | Manufacturer | Model | Calibration Due |
|--------|------------------------|--------------|------------|-----------------|
| 09357 | Signal Conditioner | Daytronics | 3370 | 4/09 |
| 09715 | Reaction Torque Sensor | Lebow | 2110220500 | 4/09 |
| 09696 | Digital Protractor | Mitutoyo | Pro 360 | 6/09 |
| 02259 | Weight Indicator | GSE | 620 | 8/09 |
| | Accessibility Fixture | DTL | N/A | NCR |
| | Wheelchair | Quickie | Q2 | NCR |
| | 10" X 10" Hand Tamper | Ludell | N/A | NCR |

NCR – No Calibration Required



RESULTS

The table below shows the results for each trial. Per ASTM F1951-08, the work force averages were determined averaging the three median trials, discarding the highest and lowest values.

| Run # | No Material work per foot in pound force-inch | With Material work per foot in pound force-inch |
|----------------|--|--|
| Straight Run 1 | 104.69 | 30.72 |
| Straight Run 2 | 108.36 | 26.37 |
| Straight Run 3 | 110.36 | 28.41 |
| Straight Run 4 | 110.31 | 28.85 |
| Straight Run 5 | 110.41 | 25.99 |
| Average | 109.68 | 27.88 |
| | | |
| Turn Run 1 | 173.36 | 36.61 |
| Turn Run 2 | 176.69 | 40.09 |
| Turn Run 3 | 171.90 | 37.01 |
| Turn Run 4 | 174.70 | 39.91 |
| Turn Run 5 | 168.76 | 40.09 |
| Average | 173.32 | 39.00 |

Remarks:

The wheelchair rider weight was 175lbs., which combined with the wheelchair for a total of 222.7lbs.