



TEST REPORT

**Permalife Products, LLC
7000 Boulevard East
Guttenberg, NJ 07093**

DTL Report No. 6088009
Report Date 10/6/06
Receive Date 10/2/06

ATTN: Mr. Nick Mennona

SAMPLE DESCRIPTION

Permalife Products, LLC submitted approximately 30 cubic feet of loose-fill rubber material, identified by Permalife Products, LLC as Pour & Play, for testing. Please refer to Attachment A, (1 page), for material illustration. Testing was performed on 10/5/2006.

WORK REQUESTED/TEST SPECIFICATIONS

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.

REFERENCE DOCUMENTS

ASTM F1951-99 – Determination of Accessibility of Surface Systems Under and Around Playground Equipment

CONCLUSION

The average work per foot values measured lower when propelling the wheelchair over a six, (6), inch compacted depth of Pour & Play loose fill rubber material than when propelling the wheelchair over a flat surface with a grade of 7.1%. The material, Pour & Play, has met the requirements of ASTM F1951-99.

TEST RESULTS

Pour & Play, (loose fill rubber), was installed in 3" layers and tamped using a 10" X 10" hand tamper until a depth of 6" was achieved. The sample material was evaluated by propelling the wheelchair with four (4) even pushes across the material 5.65 feet within eight (8) seconds. This procedure was repeated five (5) times for each test (straight propulsions and 90° turn propulsions).

Wheelchair Rider Weight = 170 Lbs.
 Total Weight (Rider and Wheelchair Combined) = 205 Lbs.

Run #	No Material work per foot (lbf-in)	With Material work per foot, (lbf-in)
Straight Run 1	124.07	110.22
Straight Run 2	120.40	107.99
Straight Run 3	123.10	116.16
Straight Run 4	122.86	113.60
Straight Run 5	121.66	120.56
Average	122.54	113.33
Turn Run 1	128.83	72.19
Turn Run 2	122.33	78.81
Turn Run 3	126.51	67.67
Turn Run 4	125.81	75.66
Turn Run 5	127.25	72.96
Average	126.52	73.60

ASTM 1951-99 Work per foot average was determined discarding the high and low work per foot values and averaging the remaining three (3) trials.

Average work per foot straight, no material, grade of 7.1% = 122.54 (lbf-in).

Average work per foot straight with material = 113.33 (lbf-in)

Average work per foot turn, no material, grade of 7.1% = 126.52 (lbf-in)

Average work per foot turn with material = 73.60 (lbf-in)

REQUIREMENTS

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

TEST EQUIPMENT

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

- DTL Wheelchair Accessibility Fixture
- Lebow Strain Gauge Reaction Torque Sensor, Model 2110-110-500, ID No. 09715-Z, Calibrated to 12/06.
- Daytronics Signal Conditioner, Model 3370, ID No. 09357, Calibrated to 12/06.
- Quickie Wheelchair, Model Q2, No Calibration Required
- Mitutoyo Digital Protractor, Model Pro 360, ID No. 10986A, Calibrated to 1/31/2007
- 10-inch x 10-inch Hand Tamper, Heat Treated Steel, No Calibration Required

SAMPLE DISPOSITION

The sample material will be disposed of per request of Permalife Products, LLC representative Mr. Nick Mennona.

Reported by:

DETROIT TESTING LABORATORY, INC.



David Splane
Certification Program Coordinator



Keith G. Shelton
Certification Program Manager

DS/KGS

Enclosure: Terms and Conditions