



TEST REPORT

CLIENT:

| | | | |
|---------------|--------------------------------|-----------------------|------------------|
| Company: | PlayMax Surfacing Inc. | Report Number: | 65191A |
| Address: | 1950 Compton Avenue, Suite 111 | Lab Test Number: | 2737-4644 |
| | Corona, CA 92881 | Test Completion Date: | August 11, 2015 |
| | | Report Date: | October 15, 2015 |
| | | Page: | 1 of 2 |
| Requested By: | Chris Wolf | | |

TEST MATERIAL:

| | | | | | |
|---------------------|---|-----|-------|----------------|-----------|
| Material Type: | PIP Playground Surfacing | | | Date Received: | 8/6/2015 |
| Material Condition: | EXCELLENT: | XXX | GOOD: | POOR: | REJECTED: |
| Style: | MaxPour® | | | | |
| Description: | ½" Thick TPV Rubber Granule Top Cap over SBR Cushion Layer (overall nominal thickness 2") | | | | |

TESTING METHODS REQUESTED:

| | | | |
|--|---------------|--------------|--|
| <i>Testing Services Inc. was instructed by the client to test for the following...</i> | | | |
| Standard: | ASTM F1951-14 | Test Method: | Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment |

SAMPLING PLAN:

| | |
|---|----------|
| Sampling Date: | 8/6/2015 |
| <ul style="list-style-type: none"> Specimen sampling is performed in the sampling department at TSI. The sampling size of specimens is determined by the test method requirements. In the event a specific sampling size is not called for, a determination will be made based on previous testing experience, and approved for use by an authorized manager. All samples are subjected to the outside environmental conditions of temperature and relative humidity. Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested | |

DEVIATION FROM TEST METHOD:

| |
|---|
| State reason for any Deviation from, Additions to, or Exclusions From Test Method. |
| None |

REQUIREMENT:

A surface in place shall have average work per foot (work per meter) values for straight propulsion and for turning *less* than the average work per foot (work per meter) values for straight propulsion and for turning, respectively, on a hard, smooth, surface with a grade of 1:14 (7.1 %).

PROCEDURE:

Test Surface Preparation: Tests were conducted on 8/11/15 indoors at TSi Laboratories in an environment of 76°F and 70% R.H. The playground surfacing material was installed in a wooden box (44"W x 117"L).

Wheelchair/Operator: The wheelchair used in these tests was manufactured by *Invcare*, Model Action Xtra, serial Number 98J84142. This wheelchair is totally adjustable, a necessity for these tests. The pneumatic tires were inflated to 60 psi on the rear and 32 psi on the front. The weight of the wheelchair was 24.25 pounds and the operator's weight was 165 pounds for a total of 189 pounds. The operator's distribution was adjusted to 60% on the rear wheels and 40 % on the front.

Torque Measuring System: A certified *Dillion Electronic Force Gauge*, Model BFG 500N, S/N 98-2277-07 was used as an interface between a *Dell* Laptop and a certified *Dillon Smart Torque Wrench*, S/N 97-0085-01. Software, also from Dillon, logged the load vs. time and integrated the area under the resulting curves. The adapters and accessories needed to attach the instrumentation were fabricated locally. This total package added 10 pounds to the total weight bringing the total to 199 pounds.

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| Release Date: | Control Type: Electronic – Expires 24 hours after this date: Oct. 15, 15 Printed copies are uncontrolled | | |



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TEST SUMMARY:

| TEST METHOD | Maximum Requirements – Average Work/ft-Force | TEST RESULTS – Average Work/ft-Force |
|---------------|--|--------------------------------------|
| ASTM F1951-14 | Baseline Straight: 13.50 lbs | 7.04 lbs |
| | Baseline Turning: 10.24 lbs | 6.11 lbs |

CONCLUSION:

The above listed material **meets/exceeds** both the straight line and turning propulsion requirements set forth in this test method and therefore, passes the standard.

Uncertainty:

We undertake all assignments for our clients on a best effort basis. Our findings and judgments are based on the information to us using the latest test methods available. TSI can only ensure the test results for the specific items tested. Unless otherwise noted in the deviations sections of this report, all tests performed are in compliance with stated test method.

Test Report Approval:

Erle Miles, Jr. VP, Testing Services Inc

TSi Accreditation: Our laboratory is accredited by the US Dept of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005. Our code # is: NVLAP 100108-0. TSi is a certified independent testing laboratory by the Synthetic Turf Council

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