



TEST REPORT

CLIENT:	Life+Floor	REPORT NUMBER:	61944
	2010 E Hennepin Ave #8	LAB TEST NUMBER:	2650-1183
	Building 8, Suite 206	DATE:	September 26, 2014
	Minneapolis, MN 55413	PAGE	1 of 1

SAMPLE ID:

<i>Life+Floor Tile</i>	Part #212-41-50
<i>Color / Mold / Thickness</i>	Boulevard / Ripple / 9.5 mm
<i>CTN #</i>	216

INTRODUCTION:

Testing Services Inc was instructed by the client, to perform ADA wheelchair accessibility for the above described material being used under and around playground equipment.

TEST METHOD:

ASTM F1951: Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment

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 09/25/14 indoors at TSi Laboratories in an environment of 77°F and 44% R.H. The Life+Floor tile 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 *Dillion 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.

TEST RESULTS:

Baseline Straight (Average Work/ft-Force)	Life+Floor Tile (Average Work/ft-Force)
14.33 lbs	3.92 lbs
Baseline Turning (Average Work/ft-Force)	Life+Floor Tile (Average Work/ft-Force)
10.14 lbs	4.29 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.

Erle Miles, Jr V.P., Testing Services Inc

TSi Accreditation:

Our laboratory is accredited with US Dept of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005. Our code # is NVLAP 100108-0. However, it should be noted that some or all of the tests performed are not under our scope of accreditation due to the work not fully conforming to the standard, or it being outside the scope of our accreditation, or subcontracted.

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