

# REPORT NUMBER QI1309611-4



PREPARED FOR RUBBERECYCLE, LLC 1985 RUTGERS LAKEWOOD, NJ 08701

**ATTENTION** MORRIS HASSAN

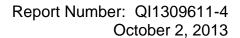
**P.O**. 40483

REPORT DATE OCTOBER 2, 2013

### TÜV SÜD America, Inc.

47523 Clipper Street Plymouth, Michigan 48170 USA

Phone: 734.455.4841 Fax: 734.455.6590 www.TUVAmerica.com TÜV SÜD America, Inc. letters, reports and data are for the exclusive use of our customers to whom they are addressed and shall not be reproduced, except in full, without the written approval of the Laboratory. Our letters and reports apply only to those samples tested, and are not necessarily indicative of the qualities of apparent identical or similar products. Samples not destroyed in testing are retained for a maximum of thirty (30) days. The use of the name TÜV SÜD America, Inc. or its Seal or Insignia, are not permitted to be used by the customer on their communications, brochures, advertising, reports or other forms of media, without prior written approval. Reported test parameters are generally specified as set points of testing equipment. All documentation and data utilized in the generation of this report are available upon request.





## **REPORTED / APPROVED BY:**

TÜV SÜD America, Inc.

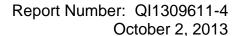
Reported by: Timothy Fouchia, Project Coordinator

CERTIFICATION TEST PROGRAMS

Timothy Fouchia

Approved by: David Splane, Certification Program Manager

**CERTIFICATION TEST PROGRAMS** 





#### **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)

Perform testing in accordance with ASTM F1951-09b, Standard Specification for 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.

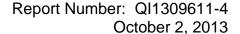
Testing was performed October 1, 2013.

#### SAMPLE DESCRIPTION

Rubberecycle, LLC, submitted one (1) surfacing system, identified by Rubberecycle, LLC, as AccessAmat 15Ft. System.

TÜV SÜD America, Inc.

**Test Report** 





### **TESTING PERFORMED**

### ACCESSIBILITY OF SURFACE SYSTEMS

#### **Procedure**

Per Rubberecycle, LLC's installation procedure, the following system was installed in TÜV SÜD America, Inc.'s test fixture: one (1) inch of loose fill rubber playground surfacing material, overlying 0.5in. thick by 24in. wide by 24in. long AccessAmat rubber mats affixed together with screws at the seams, overlying five (5) inches of loose fill rubber playground surfacing material. Total system thickness of 6.5 inches.

The sample material was tested, propelling the wheelchair with four even propulsion strokes, per trial, across the material 5.56 feet, within eight seconds. This process was repeated five times for each test, (straight and 90° turn propulsions).

Per ASTM F1951-09b, section 5.1, no additional compaction or modification occurred between propulsion trials.

#### Results

The average work force over one 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 a flat surface with a grade of 7.1%.

### Conclusion

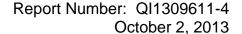
The average work force per foot, in pound force-inch values, measured lower when propelling the wheelchair over the AccessAmat 15Ft. System than when propelling the wheelchair over a flat surface with a grade of 7.1%. The material met the requirements of ASTM F1951-09b.

### **Sample Disposition**

The sample material will be retained by TÜV SÜD America, Inc., for fifteen (15) days, then disposed of at the discretion of TÜV SÜD America, Inc., unless otherwise requested by Rubberecycle, LLC.

TÜV SÜD America, Inc.

**Test Report** 





## **TEST EQUIPMENT**

TÜV SÜD America, Inc.'s calibration system meets the requirements of ISO 17025:2005.

TÜV ID	Description	Manufacturer	Model	Calibration Due
PLYP00043	Signal Conditioner	Daytronics	3370	01/14
PLYP00047	Reaction Torque Sensor	Lebow	2110220500	01/14
PLYP00015	Digital Protractor	Mitutoyo	Pro 360	06/14
N/A	Wheelchair	Quickie	Q2	NCR
N/A	Accessibility Fixture	DTL	N/A	NCR
PLYP00031	Balance	Toledo Scale	4181	07/14
PLYP00044	Scale	Acculab	CS-110P	07/14

NCR - No Calibration Required

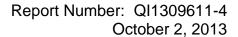
## **REMARKS**, Deviation(s):

- Per ASTM F1951-09b, section 7.1.2 Test Wheelchair Rider A 165 + 11, -4.4lb test wheelchair rider shall propel the wheelchair during testing. The rider's weight was measured at 193 pounds prior to testing thus deviating from the standard requirements.
  - The wheelchair rider weight was 193 pounds, which combined with the wheelchair for a total of 243.7 pounds.
- Per section 7.1.3 Weight of Total System- The total weight of the wheelchair Rider System, including any distance measurement or data acquisition equipment residing on the wheelchair shall be a minimum of 187.2 lb and a maximum of 255 lb.

Page 6: Test Data

TÜV SÜD America, Inc.

**Test Report** 





Material Name / Description: AccessAmat 15Ft. System

Run #	No Material (work per foot) (lbf·in)	With Material (work per foot) (lbf·in)
Straight Run 1	136.389	130.456
Straight Run 2	133.704	126.018
Straight Run 3	132.006	120.896
Straight Run 4	134.808	119.858
Straight Run 5	129.994	125.259
Average	133.506	124.058

Turn Run 1	197.157	147.824
Turn Run 2	193.229	145.251
Turn Run 3	188.644	134.371
Turn Run 4	187.836	137.643
Turn Run 5	195.462	141.698
Average	192.445	141.531