TEST REPORT

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RENDERED TO
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PRODUCT EVALUATED: Zoid PSV Mesh
EVALUATION PROPERTY: ISO 7176; 2012 Part 16

Report of Testing Zoid PSV Mesh for compliance with the applicable requirements of the following criteria: ISO 7176, 2012: Wheelchairs- Part 16: Resistance to Ignition of Postural Support Devices

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2 INTRODUCTION

Intertek has conducted testing for Cascade Designs Inc. on Zoid PSV Mesh to evaluate the resistance to ignition by match flame equivalent of all postural support devices. Testing was conducted in accordance with ISO 7176, 2012: Wheelchairs- Part 16: Resistance to Ignition of Postural Support Devices. This evaluation began July 24, 2015 and was completed July 24, 2015.

3 TEST SAMPLES

3.1. SAMPLE SELECTION

Samples were submitted to Intertek directly from the client. Samples were not independently selected for testing. Samples were received at the Evaluation Center on July 17, 2015 in good condition.

3.2. SAMPLE AND ASSEMBLY DESCRIPTION

Sample Name: Zoid PSV Mesh
Sample Description: The Zoid PSV Mesh. is a wheelchair skin protection seat cushion.

A complete 18” x 18” seat cushion was provided by the client.

Samples were conditioned at a temperature of 23 °C ± 2 °C and relative humidity of 50 % ± 5 % as specified in ISO 554.

4 TESTING AND EVALUATION METHODS

Testing consists of a gas flame produced from a burner consisting of a stainless steel tube with an outside diameter of 8 mm + 0,1 mm and internal diameter of 6.5 mm + 0.1 mm, and length of 200 mm + 5 mm connected by a flexible tube 2.5 m to 3.0 m in length with an internal diameter of 7 mm + 1 mm via a flow meter with an accuracy of + 0.5 ml/min connected to a source of butane gas providing an outlet pressure of a nominal 2.8 kPa and at a flow rate of 45 ml/min ± 2 at 23 °C.
When testing inferior/superior supports (e.g. arm supports) which are intended to be used only in the range of the horizontal plane ± 30°, use the horizontal test.
For all other supports use the vertical test. If the part is intended for use in either plane, then use both tests.

Horizontal test
Set up the test sample mounted on the wheelchair or in the test rig in a horizontal orientation ± 3°in the test environment. Select the surface which the manufacturer considers to be at risk from a fire source. Apply the ignition source to the test sample with the burner tube positioned at 45° ± 5° to the surface of the sample from above, at its centroid and touching its surface. After a period of 20 s ± 1 s, remove the ignition source from the test sample. Observe the subsequent progress of combustion and record any evidence of progressive smouldering or flaming in the interior and/or surface.

Vertical test
Set up the test sample mounted on the wheelchair or in the test rig in a vertical orientation ± 3° in the test environment. Apply the ignition source to the test sample with the burner tube positioned half way across the test sample and at a height of (0.1 ± 0.02) × *h* above the bottom edge of the test sample, where *h* = total height of test sample. The burner tube shall lie in the horizontal plane ± 3° and form an angle of 45° ± 5° to the sample surface and just in contact with the surface. After a period of 20 s ± 1 s, remove the ignition source from the test sample. Observe the subsequent progress of combustion and record any evidence of progressive smouldering or flaming in the interior and/or surface.

4.1 TEST CRITERIA

Show no evidence of progressive smouldering or flaming in the interior and/or surface after 120s after removal of the ignition source.
Exhibit no burn damage area greater than 600 mm2 of any layer when tested in a horizontal orientation.
Exhibit no burn damage area of any layer greater than 4,500 mm2 when tested in a vertical orientation.

4.2 Deviations from the Standard

There were no deviations from the standard.

“The following test results relate only to the ignitability of the combination of materials of the postural support devices under the particular conditions of the test. They are not intended as a means of assessing the full potential hazard of the complete wheelchair”.

5 TESTING AND EVALUATION RESULTS

5.1. RESULTS AND OBSERVATIONS

Observations of any of the following behaviors 120s after removal of the test flame?

CRITERIA	Test 1	Test 2
Progressive Smouldering of the interior and or surface Vertical Test	NO	NO
Progressive Smouldering of the interior and or surface Horizontal Test	NO	NO
Progressive Flaming of the interior and or surface Vertical Test	NO	NO
Progressive Flaming of the interior and or surface Horizontal Test	NO	NO
Flames Self Extinguished (sec) Vertical Test	NA	NA,
Flames Self Extinguished (sec) Horizontal Test	4	6
Horizontal Test Damaged Area	768mm²	875mm²
Burn Damage > 600mm² of any layer for the Horizontal test	YES	YES
Vertical Test Damaged Area	NA	NA
Burn Damage > 4,500mm² of any layer for the Vertical test	NA	NA

5.2. EXAMINATION OF RESULTS

The sample exhibited some after-flaming. There was initial burn thru of the surface material and the inner foam melted where the test flame was in contact with the sample but there was no flame progression.

6 CONCLUSION

Intertek has conducted testing for Cascade Designs Inc. on Zoid PSV Mesh to evaluate the resistance to ignition by match flame equivalent of all postural support devices. Testing was conducted in accordance with ISO 7176, 2012: Wheelchairs- Part 16: Resistance to Ignition of Postural Support Devices.

Zoid PSV Mesh failed the test criteria of ISO 7176, 2012: Wheelchairs- Part 16.

The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

INTERTEK

Reported by: 

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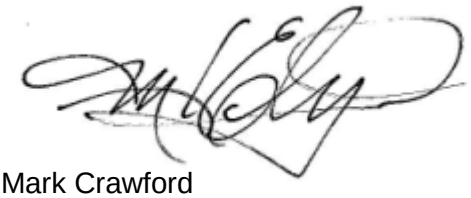
Reviewed by: 

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REVISION SUMMARY

DATE	SUMMARY
July 27, 2015	Date of original report