

REPORT NUMBER: 101220896TOR-001

ORIGINAL ISSUE DATE: June 21, 2013

EVALUATION CENTER

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RENDERED TO

Safe-T-Strap
1885 Clements Rd. # 209
Ajax, Ontario L1W 3V4

PRODUCT EVALUATED

Safety Line Straps

EVALUATION PROPERTY

Drop Resistance

Report of Dynamic Drop Tests of Safety Line Straps
In basic accordance with CAN/CSA – Z91-M90 Section 7.2,.2.2.b

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2 Introduction

Intertek has conducted drop tests for Safe-T-strap on safety line straps secured to a mock-up wood floor with nails. The drop tests were performed in basic accordance with *CAN/CSA – Z91-M90 Section 7.2, 2.2.b. "Safety Code for Window Cleaning Operations"*. This evaluation began on June 14 and was completed on June 18, 2013.

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 May 29, 2013.

3.2. SAMPLE AND ASSEMBLY DESCRIPTION

The safety line straps fabricated from white nylon webbing measured 1066 mm (42") in length by 57 mm (2-1/4") wide with a loop stitched in each end. In addition to the 18 safety line straps submitted, four 2 ft x 2 ft flooring mock ups fabricated from 2x8's topped with 5/8" plywood flooring were constructed and submitted by client. The flooring mock-ups had a single 2x8 joist running up the centre.

4 Testing and Evaluation Methods

4.1. SPECIMEN PREPARATION

The samples were received ready to test no preparation was necessary.

4.2. CONDITIONING

The samples were tested in the laboratory under ambient conditions. No specific conditioning parameters were required before testing.

4.3. TEST PROCEDURES

One end of each safety line strap was anchored through the flooring and into the single 2x8 joist below using four 3-1/4 " ardox nails through the stitched area. The long axis of the strap was in line

with the joist. A 1.8m (6 ft) long 9.5 mm (3/8") dia. steel wire rope with terminal ends was attached to the free end of the safety strap which sat flat on the floor. The wire rope extended out over the edge of the flooring mock up and then downwards. A 100kg (220 lb) weight was attached to the free end of the wire rope. The 100kg (220 lb) weight was then raised 1.2m above its position at rest and dropped straight downward using a mechanical quick release. In order for the subject strap to pass the anchored strap had to restrain the dropped 100kg (220 lb) weight.

5 Testing and Evaluation Results

5.1. RESULTS AND OBSERVATIONS

With the straps orientated in line with the joist, anchored through the flooring and into the single 2x8 joist below using four 3-1/4 " ardox nails through the stitched area all three straps tested restrained the 100kg (220 lb) dropped weight. All three straps tested stayed in place, nails remained embedded in the wood floor assembly and the straps were not pulled over the nail heads.

5.1.1. Statement of Measurement Uncertainty

When determining the test result, measurement uncertainty has been considered.

6 Test Apparatus

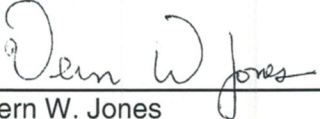
The test equipment used is described in the following table:

Equipment	Application	Intertek ID#	Calibration Due Date
Tape Measure	Drop height measurement	273 01 1106	March 26, 2014
100kg (220 lb)	Drop Weight	NA	Verified using Weigh Scale
1.8m (6 ft) long steel wire rope	Couples drop weight to strap under test	NA	NA
Quick release mechanism	Releases Weight	NA	NA
Weigh Scale	Weigh drop weight.	273 01 0999	June 4, 2014

7 Conclusion

The three safety straps tested complied with the drop test requirements of *CAN/CSA – Z91-M90 Section 7.2,.2.2.b. "Safety Code for Window Cleaning Operations"*. 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 TESTING SERVICES NA LTD.

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	Date	Changes	Author	Reviewer
0	June 21, 2013	First issue	Vern Jones	Robert Giona

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