

Test Report No. PB 14-100

on testing the performance characteristics of an anchor device type A
according to DIN EN 795:2012 and DIN CEN/TS 16415:2013
type: ABS-Lock® OnTop

Prepared for: ABS Safety GmbH
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47632 Kevelaer
GERMANY

Responsible tester: B. Eng. Jens Böhm

This Test Report comprises 6 pages and must only be distributed in whole, not in part,
without the written approval of DEKRA EXAM Test Laboratory for Component Safety.

1 General information

1.1 Customer:

ABS Safety GmbH, Gewerbering 3, 47632 Kevelaer, GERMANY

1.2 Order:

Written order of 2014-05-07

1.3 Order scope:

Testing the performance characteristics of an anchor device type A according to DIN EN 795:2012 and DIN CEN/TS 16415:2013, type: ABS-Lock[®]OnTop. Dynamic and static tests were performed after changes of the brace and the use of alternative fastening means in form of bitumen web roofing.

Note

The purpose of the tests was to determine the behavior of the anchor device, type: ABS-Lock[®]OnTop, glued under bitumen web roofing.

Dynamic and static tests with AlwitraEvalonFilm as fastening means have been documented in test report number PB 13-067 of DEKRA EXAM Prüflaboratorium für Bauteilsicherheit-Seilprüfstelle-, Dinnendahlstraße 9, 44809 Bochum, Germany.

1.4 Place and date of the tests:

Performance of the dynamic and static tests at ABS Safety GmbH, Gewerbering 3, 47623 Kevelaer, Germany, on 6th May 2014.

The Test of corrosion resistance was performed on 27 May 2014 in the Test Laboratory for Component Safety of DEKRA EXAM GmbH, Dinnendahlstr. 9, 44809 Bochum, Germany.

1.5 Samples sent and documents submitted:

3 anchor devices, type: ABS-Lock[®]OnTop, support column height 300 mm, Ø 18 mm, registration number PFB 14-324 of 6th May 2014

Drawings

All submittals are listed in the annex to this test report.

1.6 Description of the anchor devices

The anchor device, type: ABS-Lock[®]OnTop (Figure 1) secures up to three persons from falling from a height and is intended for installation on a level base.

The anchor device consists of a square base plate (200 mm x 200 mm) with four holes, one at each corner. Welded in the center is a support column. The support column of round steel \varnothing 18 mm has a length of 300 mm.

Bolted to the edges on the base plate are webs. The web width is 48.6 mm. The length of each brace is 958 mm. The span of two braces in a straight line is 2001 mm.

The anchor device is glued to the building structure under Alwitra Evalon film or bitumen roofing.

The anchor device is designed for load in all directions parallel to the surface of the building structure. The anchor device consists of corrosion-resistant steel.

A ring eye is astened by a locknut on the top end of the support column. The user can attach his personal protection equipment against fall from a height at this ring eye.

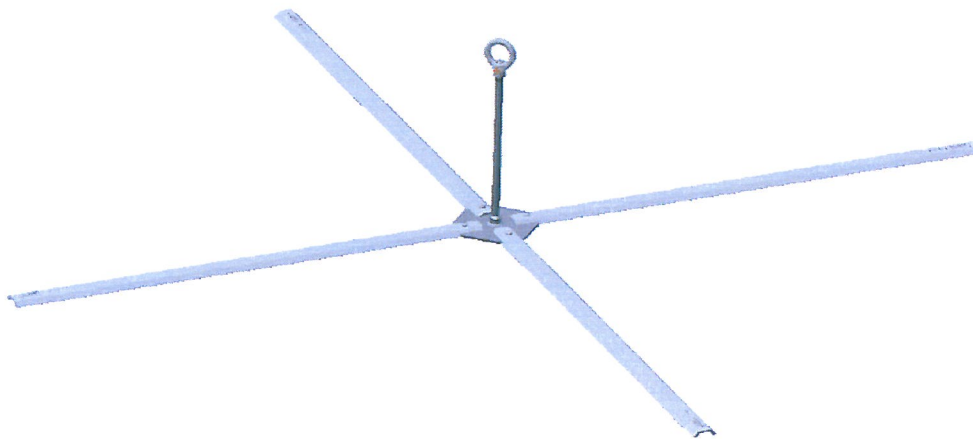


Figure 1: Anchor device, type: ABS-Lock[®]OnTop

2 Tests

The anchor device was mounted to a test rig simulating a building structure. The application of force is illustrated in Figure 2.

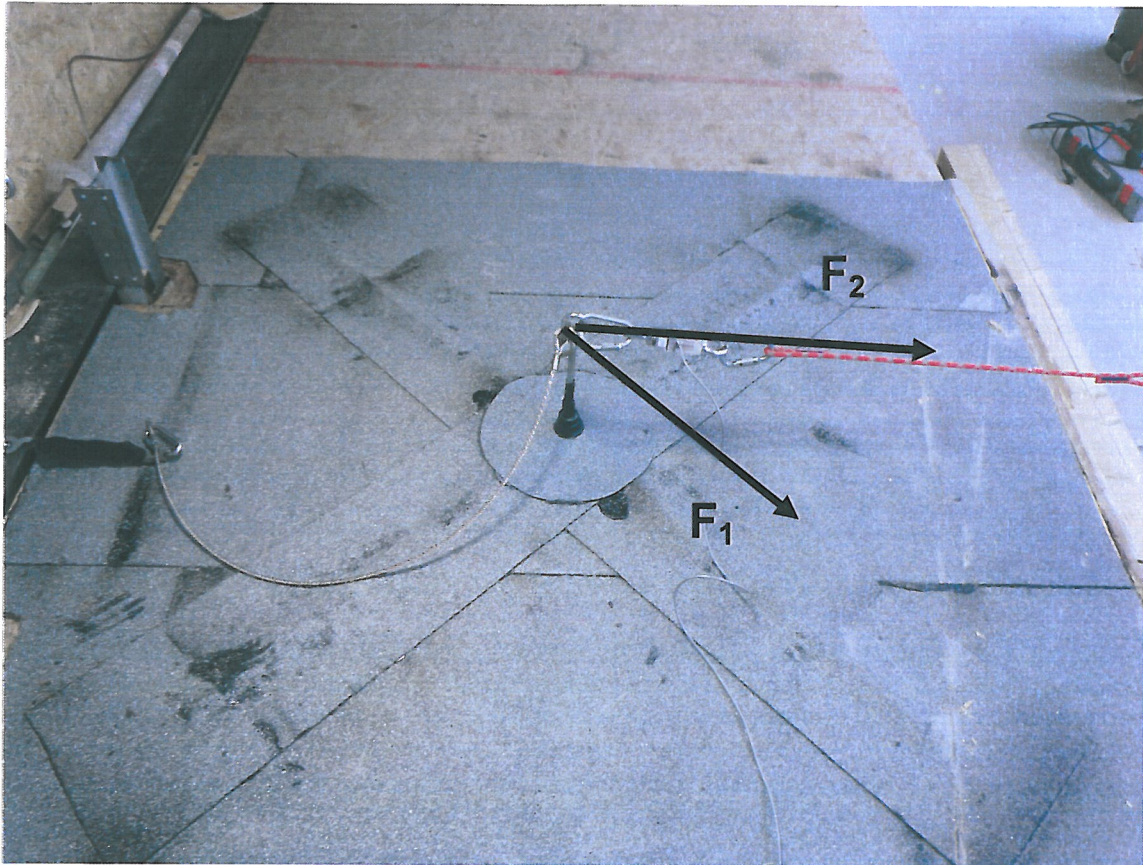


Figure 2: Anchor device,
Type: ABS-Lock[®]OnTop, glued under bitumen web roofing.

- 2.1 Special requirements on anchor devices
 - 2.1.1 Test of the dynamic strength and integrity
(Clause 4.4.1.2 DIN EN 795:2012 and clause 4.2.1.1 DIN CEN/TS 16415:2013)
 - 2.1.2 Test of the strength stress
(Clause 4.4.1.3 DIN EN 795:2012 and clause 4.2.1.2 DIN CEN/TS 16415:2013)
- 2.2 Materials
(Clause 4.2 DIN EN 795:2012)

3 Results

3.1 Special requirements on the anchor device

3.1.1 Test of the dynamic strength and integrity

The anchor device, type: ABS-Lock®OnTop was attached to a test rig that simulated a building structure. For testing the dynamic strength and integrity for the first and second persons in force directions F_1 and F_2 a test weight (steel weight of 200 kg) was dropped from a height of 1.1 m. A dynamic mountaineering rope according to EN 892 of 1.0 m length was used for the test. Another test with a test weight of 100 kg and a mountaineering rope according to EN 892 of 2.0 m length and a falling height of 2.2 m was performed for every additional person.

The direction in which the force was applied to the anchor device is shown in Figure 2. The results of the test of the dynamic strength and integrity are documented in Table 1.

Table 1: Results of the dynamic strength test of the anchor device

Person	Force application [kN]	Test weight [kg]	Intercepting force [kN]	Result
1. und 2.	12	200	$F_1 = 12,0$	Test weight was held.
			$F_2 = 11,8$	
3.	9	100	$F_1 = 12,06$	
			$F_2 = 12,1$	

The test of the integrity according to clause 4.4.1.2 DIN EN 795:2012 and clause 4.2.1.1 DIN CEN/TS 16415:2013 were waived because the static test according to clause 4.4.1.3 DIN EN 795:2012 and clause 4.2.1.2 DIN CEN/TS 16415:2013 represents a higher force acting on the anchor device.

3.1.2 Test of the static stress

The test of the static strength was made by applying the test force documented in Table 2 for 3 min. The results of the test of the static stress are documented in Table 2.

Table 2: Results of the static strength test of the anchor device

Force direction	Test force [kN]	Testing period [min]	Result
F_1	14	3	Test weight was held.
F_2			

3.2 Materials

The requirements on the materials are met. The metal parts of the anchor device were tested for the corrosion requirements according to clause 4.2.1.1 DIN EN 795:2012.

4 Note

The test results in this report apply exclusively to the test samples submitted.

This test report does not authorize the user to fix the CE label to products identical with the tested sample.

Responsible tester

A handwritten signature in blue ink that reads "J. A. J. Böhm".

B. Eng. Jens Böhm