

TEST REPORT

No. 2218916/1 dated 21.10.2016

info@ISP-Germany.com
www.ISP-Germany.com



Rockfon Boxer A 40 mm

Type of Testing:

Performance testing of an acoustic ceiling on impact resistance in accordance with DIN EN 13964 – Suspended ceilings - Requirements and test methods (Version 2014)

Applicant:

ROCKFON
Rockwool BVBA
Industrieterrein Den Hoek 3, Zone E
2110 Wijnegem
Belgium

Contact Person: Mr Van den Langenberg

Tel: +32 (0) 3 360 14 72
Fax: +32 (0) 3 360 66 72

info@rockfon.be
www.rockfon.be

Test Institute:

Institut für Sportstättenprüfung
ISP GmbH
Südstr. 1a
49196 Bad Laer
Germany

Contact Person: Mr Frank

Tel: +49 (0) 5424 / 80 97 891
Fax: +49 (0) 5424 / 80 97 893

info@ISP-Germany.com
www.ISP-Germany.com

ISP-Ref.-No.:

2218916

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Assessments and interpretations are not subject to the accreditation.

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The test results relate only to the tested measurement points.

Manufacturer:	see applicant
Test Location:	Institut für Sportstättenprüfung ISP GmbH Laboratory Südstraße 1a 49196 Bad Laer Germany
Date of the Testing:	30.09.2016
Technician:	J. Sliwinski
ISP-Sample-No.:	2218916/1 2218916/3
Author of the Report:	J. Sliwinski

1. Sample Description

The tested ceiling tile “Rockfon Boxer A 40 mm” was 40 mm thick and had the module dimensions of 600 x 600 mm respectively 1200 x 600 mm with an “A edge” and had a density of 90 kg/m³.

The grid system “Chicago-Metallic T24 Click 2890” consisted of a modular grid layout with main runners (T24 2800 UMRC 3600 38), 1200 mm cross tees (T24 2890 CTC 1200 38) and 600 mm cross tees (T24 2890 CTC 600 38, only for panel dimensions of 600 x 600 mm).

The distance between the main runners was 1200 mm. The main runners were mounted with pre-mounted quick hangers (ACC SUSP WH H 25 KG 4,0) with a diameter of 4 mm onto the ceiling. The distance between each hanger was 1200 mm.

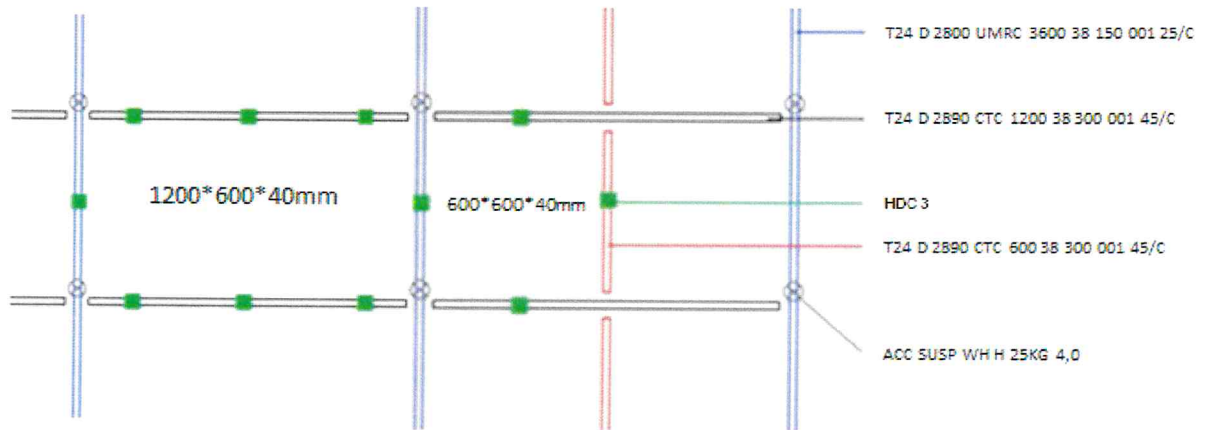
The distance between the 1200 mm cross tees was 600 mm. For the panels of 600 x 600 mm dimensions additional 600 mm cross tees were installed with a distance of 1200 mm.

The system was mounted onto the wall with C-wall angles (PT UH PS 3050 37 40 20).

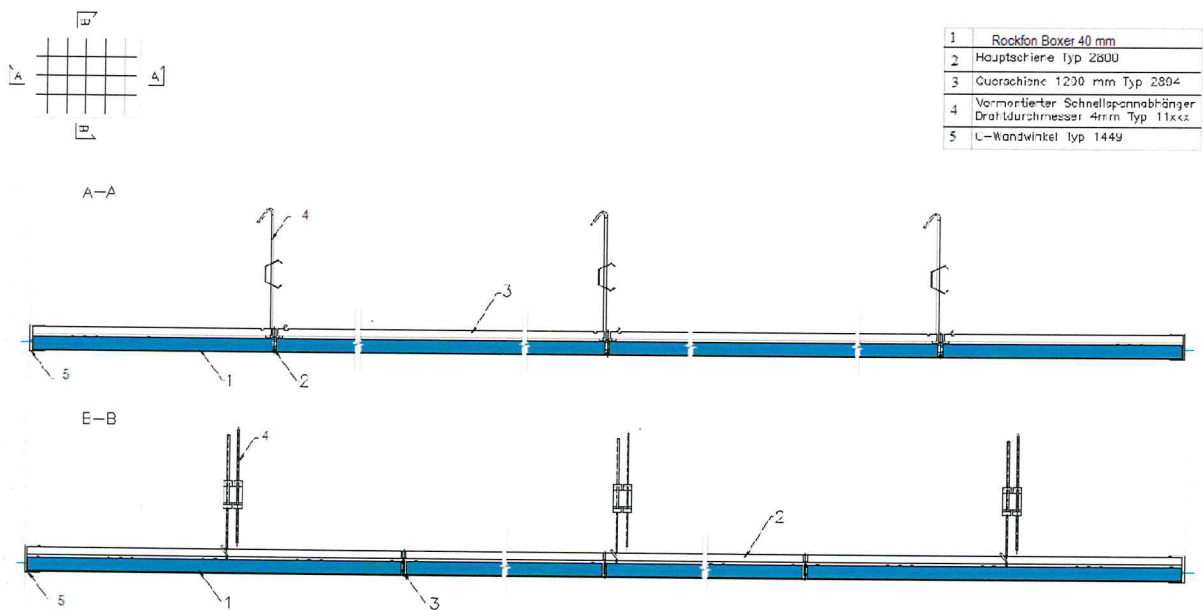
The ceiling tiles were fixed with hold down clips (type HDC 3) on the back side of the panels (8 clips per panel at 1200 x 600 mm, 4 clips per panel at 600 x 600 mm).

The overall dimensions of the tested system were approx. 3.0 x 1.8 m.

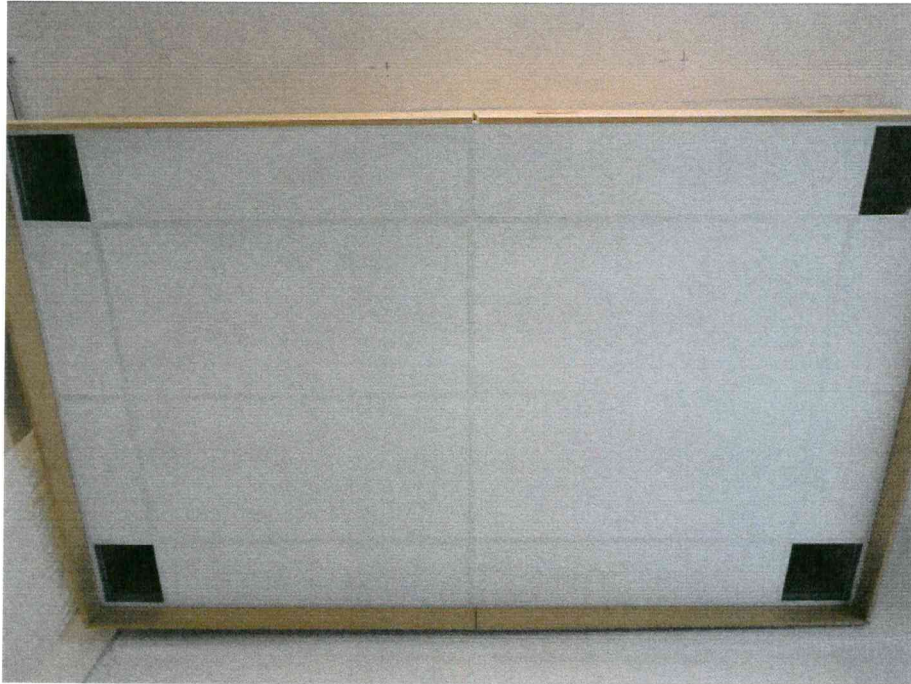
The tested system was built in the ISP laboratory on the 29.09.2016.



Picture 1: Positions of the clips



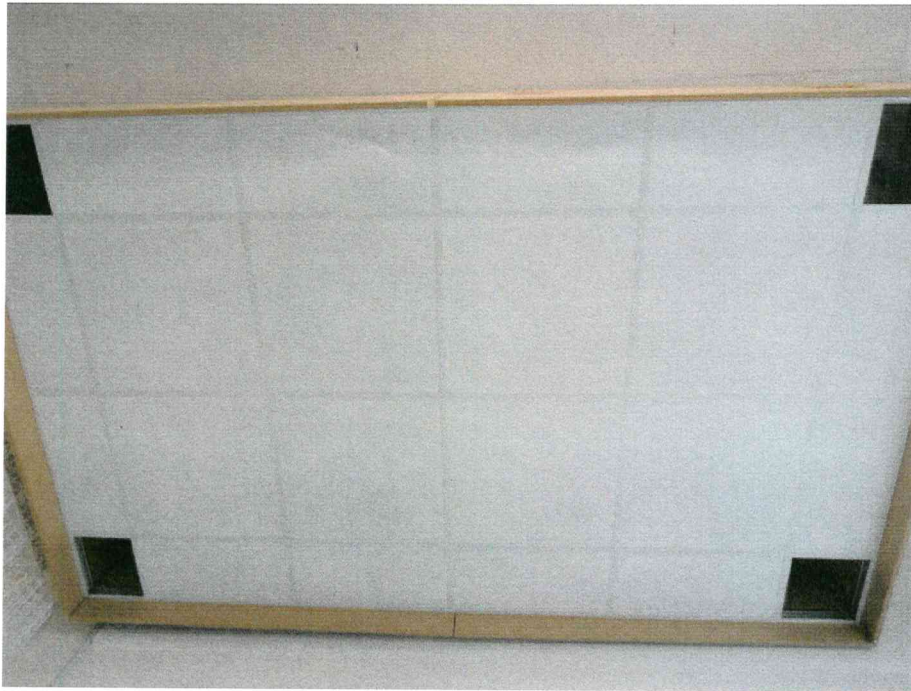
Picture 2: Drawing of the ceiling system



Picture 3: View of the ceiling system (1200 mm x 600 mm tiles)



Picture 4: View of the grid system (1200 mm x 600 mm tiles)



Picture 5: View of the ceiling system (600 mm x 600 mm tiles)



Picture 6: View of the grid system (1200 mm x 600 mm tiles)

2. Test Procedure

The testing of the impact resistance has been conducted in accordance with DIN EN 13964:2014 – annex D – impact resistance, with a ball shooting device, of which the air pressure can be regulated manually.

The ceiling system was mounted onto the ceiling and the distance from the barrel of the ball shooting device was 1.5 m. The impact velocity has been adjusted in accordance with the standardized requirements.

The testing climate of 23/50-2 met the requirements of DIN EN ISO 291:2008-08.

The results solely refer to the tested sample.

The testing of impact resistance for ceiling elements was conducted with the following requirements for class 2A:

Ball	Impact velocity	Angle	Number of impacts
Handball	8 m/s	90°	12
	8 m/s	60°	12
	8 m/s	60°	12

3. Test Results

Ball	Impact angle	Number of impacts	Changes in the ceiling element
Handball	90	12	minor cracks in the colour coating
	60	12	
	60	12	

4. Evaluation

The evaluation is based on the requirements of DIN EN 13964:2014.

After the test the mounting parts must not be compromised in stability, functionality and safety and the outer appearance shall not be changed excessively.

The ceiling tile “**Rockfon Boxer A 40 mm**” suffered minor cracks in the colour coating from the testing. However, the fabric layer below showed no signs of damage.

Therefore, the elements with the following dimensions are classed as **class 2A in accordance with DIN EN 13964 – annex D:**

- 600 x 600 mm
- 1200 x 600 mm

It is assumed that deviations of the dimensions of $\leq 5\%$ have no negative influence on the impact resistance of the product.

Therefore, the following dimensions can also be classed as 2A:

- 625 x 625 mm
- 1250 x 625 mm

END OF THE REPORT

Bad Laer, 21.10.2016


Dennis Frank
MANAGING DIRECTOR




Jakob Sliwinski
TECHNICIAN

SUMMARY

No. 2218916/1

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- Type of Testing:** Performance testing of an acoustic ceiling on impact resistance in accordance with DIN EN 13964 –Suspended ceilings - Requirements and test methods (Version 2014)
- Applicant:** **ROCKFON**
Rockwool BVBA
Industrieterrein Den Hoek 3, Zone E
2110 Wijnegem
Belgium
- Test Institute:** **Institut für Sportstättenprüfung**
ISP GmbH
Südstr. 1a
49196 Bad Laer
Germany
- Product Name:** **Rockfon Boxer A 40 mm**
- Description:** Acoustic ceiling tile with a thickness of 40 mm and an “A-edge” with the dimensions of 1200 mm x 600 mm respectively 600 mm x 600 mm.
- Test Results:** The ceiling tile “**Rockfon Boxer A 40 mm**” suffered minor cracks in the colour coating from the testing. However, the fabric layer below showed no signs of damage.
Therefore, the elements are classed as **class 2A in accordance with DIN EN 13964 – annex D.**

Bad Laer, 21.10.2016

Dennis Frank
MANAGING DIRECTOR

