



Test Report

Client: Rockwool A/S, Rockfon
Hovedgaden 501
2640 Hedehusene
Denmark

Order-No. (Client):

Order No. (MPA): **901 0363 000-2 E/Sc/Whr**

Test Item: **Ball impact resistant ceiling panels**

Specification Applied: **DIN 18032-3:1997-04, Testing against ball throwing
EN 13964: annex D, Ball impact resistance testing**

Date of Receipt of Test Item: 08.02.2011

Date of Test: 15.02.2011

Date of Report: 23.02.2011

Page 1 of 3 text pages

Enclosures: 2

Supplements: -

Total Number of Pages: 5

Number of Reports: 2 x Rockwool A/S, Rockfon
(1 x original, 1 x copy)

Test results relate only to tested items.

Publication of this report (even partial) is allowed only with written approval
of the MPA University of Stuttgart.

MPA University of Stuttgart is a testing laboratory accredited by DAP German Accreditation System for Testing according
to DIN EN ISO IEG / 17025.

The accreditation applies to the documents listed in the test method.

1 Purpose of investigation

Testing of the safety of an installation element against ball throwing according to DIN 18032-3: 1997-04 "Sports halls, halls for gymnastics and games and multipurpose use: Testing of the safety against ball throwing", and to approve ball impact resistance for ceiling panels according to EN 13964, annex D.

2 Description of the installation element

The tested building elements installed are the ceiling panels

Rockfon VertiQ with Omega profile.

The dimension of the wall covering structure built in for testing was 1800x1800mm made of 40mm thick stone wool panels (nominal wool density 120kg/m³).

The construction of the stone wool panels was as described below:

- front side: base fleece glued,
woven tissue as surface,
- back side: back side fleece glued.

The panels were installed in Omega profiles (HAT profiles), 1,0mm thick steel, dimensions: 40/25/12,5mm.

The profiles were screwed to the base wall with screws, approx. 500mm distance between screws.

The following formats of the stone wool panels can also be installed in sport halls:

1200x1200x40mm, 1200x600x40mm, 600x600x40mm, 3000x1200x40mm, 2700x1200x40mm, 2400x1200x40mm, 2400x600x40mm.

The construction of the panels described above must remain the same.

3 Testing procedure

The tests were carried out according to DIN 18032-3:1997-04 "Sports halls, halls for gymnastics and games and multipurpose use: Testing of the safety against ball throwing", and also in accordance with EN 13964, annex D standard, Impact resistance.

The procedures applied are accredited according to DIN EN ISO/IEC 17025:2005 (DAR-registration-no. DAP-PL-2907.07, annex).

The testing was run at normal temperature in the lab.

4 Test results

Ball	Angle of impact	No. of impacts	Changes in the element
Handball	90 °	12	none
Handball	60 °	12	
Handball	60 °	12	

5 Evaluation

The tested element did not show signs of damage after the test. Therefore it is classified "safe against ball throwing according to DIN 18032-3:1997-04", and also approved as class 1A ceiling panels according to EN 13964, annex D (impact velocity $16,5 \pm 0,8$ m/s).

This test report is valid until 23.02.2013

A replicate test after 23.02.2013 is not necessary if the client can prove that the tested construction has not been significantly changed and is installed without any changes. This has to be certified by the testing house.


Schmid
Tester




Dipl.-Ing. Wellhäuser
Vice Section leader

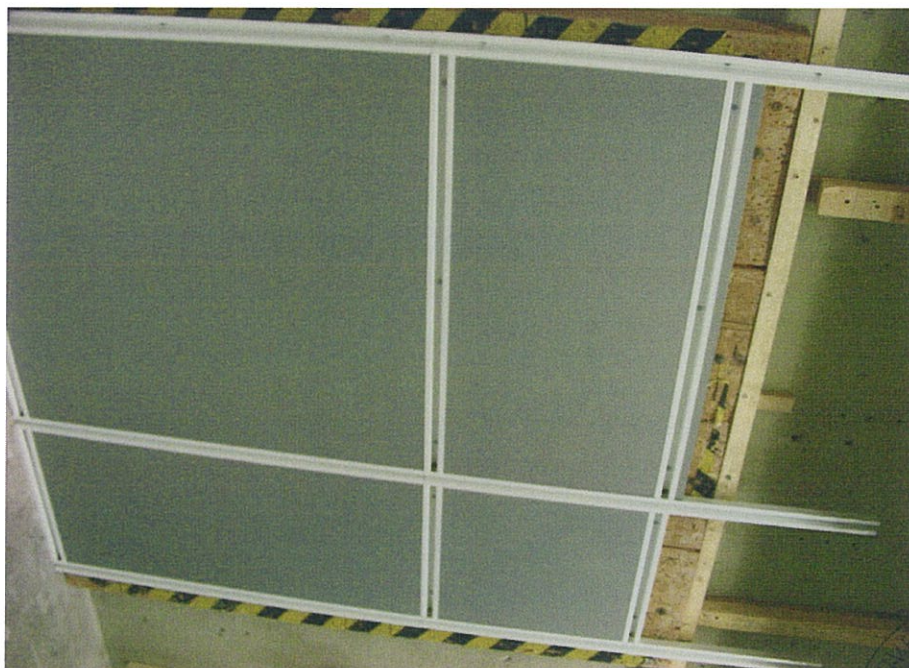


Photo 1
Tested elements: ceiling panels
Rockfon VertiQ with Omega profile





Photo 2
Tested elements detail: ceiling panels
Rockfon VertiQ with Omega profile

