

**Sound insulation index to DIN EN ISO 10140-2010****P-BA 142/2016**

Applicant: DORMA Hüppe Raumtrennsysteme GmbH & Co. KG  
26655 Ocholt, Germany

Results sheet 1

**Subject:**

Movable wall (test item S 10967-06), type Variflex 100, with two full-wall elements and one telescopic element, clad on both sides with 16 mm thick, coated chipboard sheets, each with 1 x 2.5 mm thick heavy-duty matting adhesive-bonded on their internal faces; element cavity filled with 40 mm thick mineral wool; with additional lip seals at the cover panels top and bottom both sides.

The movable wall (partition) was in a fully functional condition.

**Element configuration:**

|        |                                                                                                                                                                                                                                                                |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16 mm  | coated chipboard sheet, mass per unit area: approx. 10.8 kg/m <sup>2</sup>                                                                                                                                                                                     |
| 2.5 mm | heavy-duty matting, full-face adhesive-bonded, mass per unit area: 5 kg/m <sup>2</sup>                                                                                                                                                                         |
| 68 mm  | cavity filled with 40 mm thick loosely packed mineral wool (product name Knauf Insulation Universaldämmwolle Classic D-O40 insulation wool, length-related flow resistance $r \geq 5 \text{ kPa} \cdot \text{s/m}^2$ ; density: approx. 30 kg/m <sup>3</sup> ) |
| 2.5 mm | heavy-duty matting, full-face adhesive-bonded, mass per unit area: 5 kg/m <sup>2</sup>                                                                                                                                                                         |
| 16 mm  | coated chipboard sheet, mass per unit area: approx. 10.8 kg/m <sup>2</sup>                                                                                                                                                                                     |

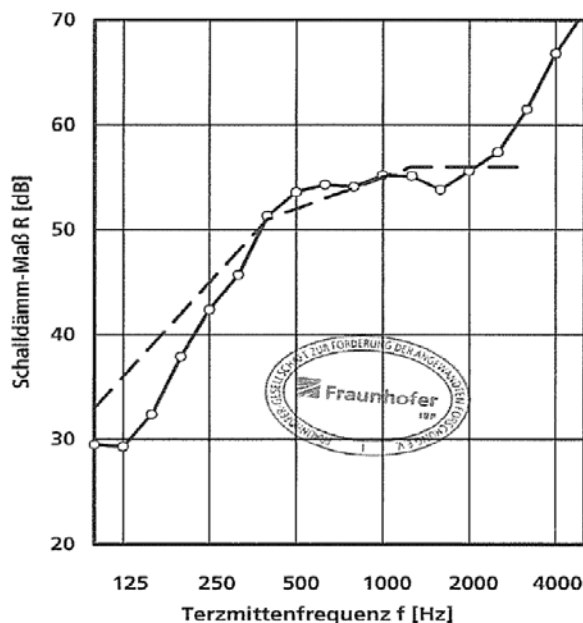
Thickness of wall: 100 mm

Mass per unit area of wall: 40 kg/m<sup>2</sup>, incl. frame and mechanism

For a further description of the subject and technical data, see Table 1 and also Figs. 1 and 2.

Tested surface area: 10.75 m<sup>2</sup>  
Test rooms: P6  
Room volumes:  
Source  $V_S = 51.5 \text{ m}^3$   
Receiver  $V_E = 63.2 \text{ m}^3$   
Type: Test stand  
Rel. humidity: 42% ± 2%  
Air temperature: 21.2°C ± 0.3°C  
Static air pressure: 970 hPa ± 1 hPa  
Test sound: Pink noise  
Date of test: 21 Oct. 2014

| f [Hz] | R [dB] |
|--------|--------|
| 50     | -      |
| 63     | -      |
| 80     | -      |
| 100    | 29,5   |
| 125    | 29,3   |
| 160    | 32,4   |
| 200    | 37,9   |
| 250    | 42,4   |
| 315    | 45,7   |
| 400    | 51,3   |
| 500    | 53,6   |
| 630    | 54,3   |
| 800    | 54,1   |
| 1000   | 55,2   |
| 1250   | 55,1   |
| 1600   | 53,8   |
| 2000   | 55,6   |
| 2500   | 57,4   |
| 3150   | 61,5   |
| 4000   | 66,8   |
| 5000   | 70,9   |

**Sound reduction value R [dB]****Third-octave centre frequency f [Hz]**

Weighted sound reduction index to DIN EN ISO 717-1:2013

$$R_w (C; C_{tr}; C_{100-5000}; C_{tr, 100-5000}) = 52.2 \pm 1.2 (-3; -8; -2; -8) \text{ dB}$$

**Fraunhofer**  
**IBP**

This test was carried out in a test laboratory of the IBP, accredited to DIN EN ISO/IEC 17025:2005 by the DAP with certificate no. D-PL-11140-11-01.

Stuttgart, 22 June 2016

Test department manager: