

Sound Reduction Index according to DIN EN ISO 10140-2

P-BA 234/2013e

Client: Franz Nüsing GmbH + Co. KG
48163 Münster

Fig. 5

Test Specimen:

Double-leaf movable partition wall in timber panel design (test object S 10611-08), manual appliance, type "newEco 100".

The partition consisted of 3 wall elements (1200 mm x 2860 mm), a wall connection profile (50 mm x 2860 mm) and a retractable wall post (100 mm x 2860 mm). Furthermore a fixed wall element with a wight of 400 mm was mounted at the edge of the test opening. The partition was in a functional state.

Element construction:

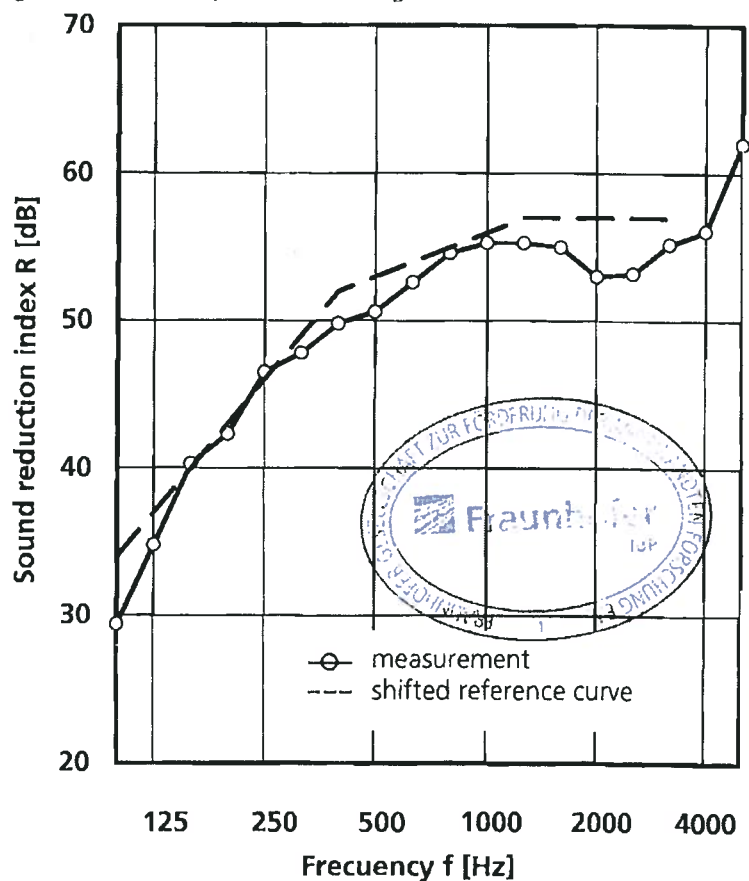
- 16 mm covering made of chipboard, mass per unit area: 10.8 kg/m²
- 5 mm heavyweight mat (clamped to the complete surface area), mass per unit area: 12 kg/m²
- 58 mm cavity with 50 mm thick loosely adjusted mineral wool (compressed); density: 16 kg/m³
- 5 mm heavyweight mat (clamped to the complete surface area), mass per unit area: 12 kg/m²
- 16 mm covering made of chipboard, mass per unit area: 10.8 kg/m².

Additional description and technical data see page 2 of this test report as well as figures 1 to 4 and table 1.

Test surface area: 12.54 m²
 Test facilities: test facilities for walls P2
 Room volume: V_s = 69.0 m³
 V_E = 75.1 m³

Maximum insulation of test facility: R'_{max,w} ≥ 89 dB
 Relative humidity: 53 %
 Air temperature: 23.5 °C
 Static pressure: 960 hPa
 Excitation noise: pink noise
 Test date: September 6, 2013

Frequency f [Hz]	Sound reduction index R [dB]
100	29.4
125	34.8
160	40.3
200	42.3
250	46.5
315	47.8
400	49.8
500	50.6
630	52.6
800	54.6
1000	55.3
1250	55.3
1600	55.0
2000	53.0
2500	53.2
3150	55.2
4000	56.1
5000	62.0



Weighted sound reduction index and spectrum adaptation terms according to DIN EN ISO 717-1:2013

$$R_w (C; C_{tr}; C_{100-5000}; C_{tr,100-5000}) = 53 \text{ dB } (-2; -7; -1; -7)$$



The test was carried out in a test laboratory of the IBP accredited according to DIN EN ISO/IEC 17025 by the DAP (German Accreditation System for Testing), No. DAP-PL-3743.26.

Stuttgart, January 24, 2014
 Head of the test laboratory: