Testing report No 569/2011–AL8.4

Supplement 4

Sound reduction index, R , according to EN ISO 140-3
Laboratory measurements of airborne sound insulation of building elements

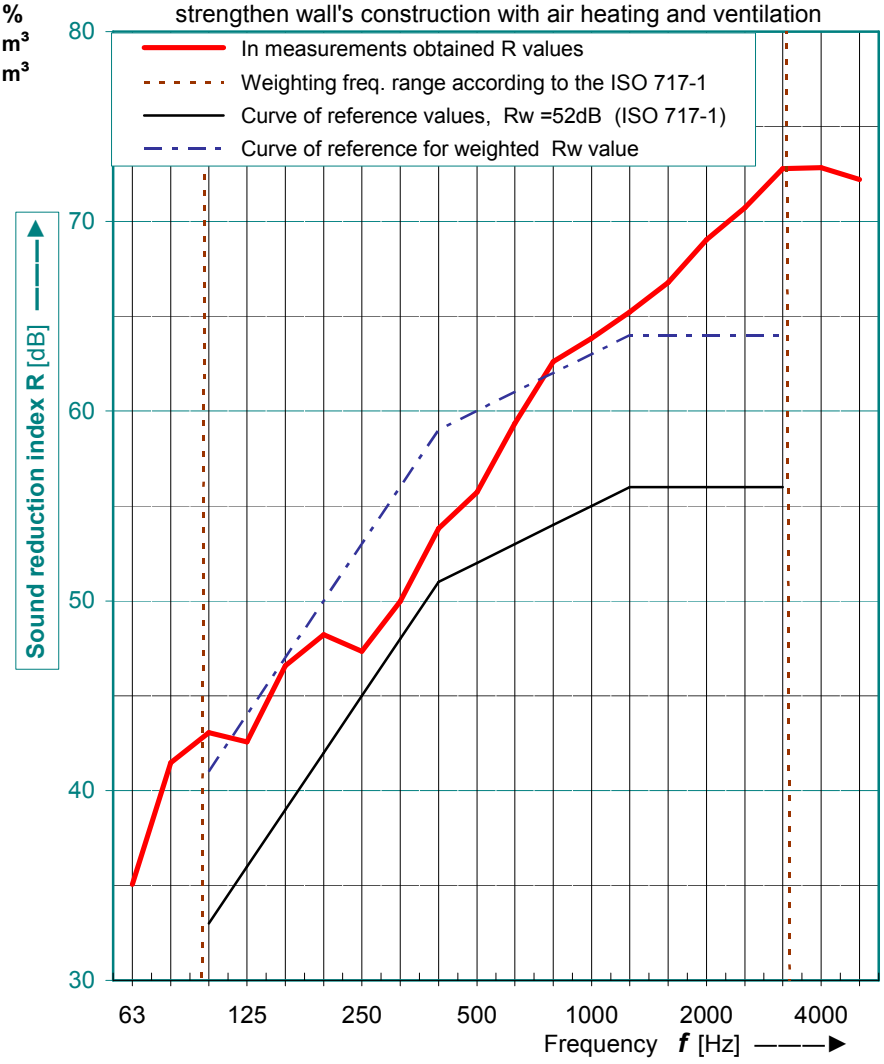
Manufacturer :	AEROC AS Estonia	**Sample identific. :**	No. 506-4
Client :	AEROC AS Estonia	**Test room identific. :**	Lab.T-282 Building acoust.chamber
Test specimen mounted by :	AEROC AS Estonia	**Date of test :**	August 19, 2011

Description of test specimen and arrangement: Double dividing wall — ***1) AEROC Hard blocks 150mm, 2) ISOVER rock-wool OL-A 30mm, 3) Air intermediate layer 20mm, 4) AEROC Element 100mm***

Area ***S*** of test specimen : **9,9 m²**
Mass per unit area : **133 kg/m²**
Air temp. In the test rooms : **18,0 °C**
Air humidity in the test rooms : **75,0 %**
Source room volume : **71,0 m³**
Receiving room volume : **67,8 m³**

Measurements were performed a day after sample building and strengthen wall's construction with air heating and ventilation

Frequency ***f*** [Hz]	***R*** ⅓ octave [dB]
50	29,8
63	35,1
80	41,5
100	43,1
125	42,6
160	46,6
200	48,2
250	47,3
315	50,0
400	53,8
500	55,7
630	59,3
800	62,6
1000	63,8
1250	65,2
1600	66,8
2000	69,0
2500	70,7
3150	72,8
4000	72,8
5000	72,2
6300	71,7
8000	71,3
10000	69,76



Weighted sound reduction index, $R_w(C;C_{tr})$, rating according to EN ISO 717-1:

$R_w(C;C_{tr})$ = 60 (-1 ; -5) dB

C 50-3150 = **-2 dB** ***C*** 50-5000 = **-1 dB** ***C*** 100-5000 = **0 dB**

Evaluation based on laboratory measurement results obtained by an engineering method

Ctr 50-3150 = **-9 dB** ***C***tr 50-5000 = **-9 dB** ***C***tr 100-5000 = **-5 dB**

"R&D Akustika" Ltd Acoustics laboratory T-282

Date : 2011.08.29.

Signature :