

Schmidlin INFINITY bathtub support (SIA 181) Sound measurement according to SIA 181

Test environment:

Baulabor Wilhelm Schmidlin AG, Oberarth
Concrete floor 24 cm
Subfloor 12.5 cm

Measuring instruments:

Norsonic 140
Class 1
Calibration 259-19875 (Publisher: Swiss Federal Institute of Metrology METAS)

EMPA Pendulum hammer

Test object:

Schmidlin INFINITY bathtub support (SIA 181) installed with bathtub NORM CLASSIC 180x80 cm

Mounting type:

Installation height 55 cm from subfloor
Permanently installed with seal, connected drain and overflow fitting, tiled and siliconed

Requirements according to standard SIA 181:2020:

According to the standard SIA 181 Table 7, a shower tray causes a so-called "single noise" when used in the transmission room, which falls under the category of "usage noise".

According to standard SIA 181 Table 6, the limit value for a room with medium noise sensitivity (bedroom, living room) at increased requirements at **34 dB** and for a room of low noise sensitivity (bathroom, toilet, kitchen) at **38 dB**.

Test performance:



Measurement results:

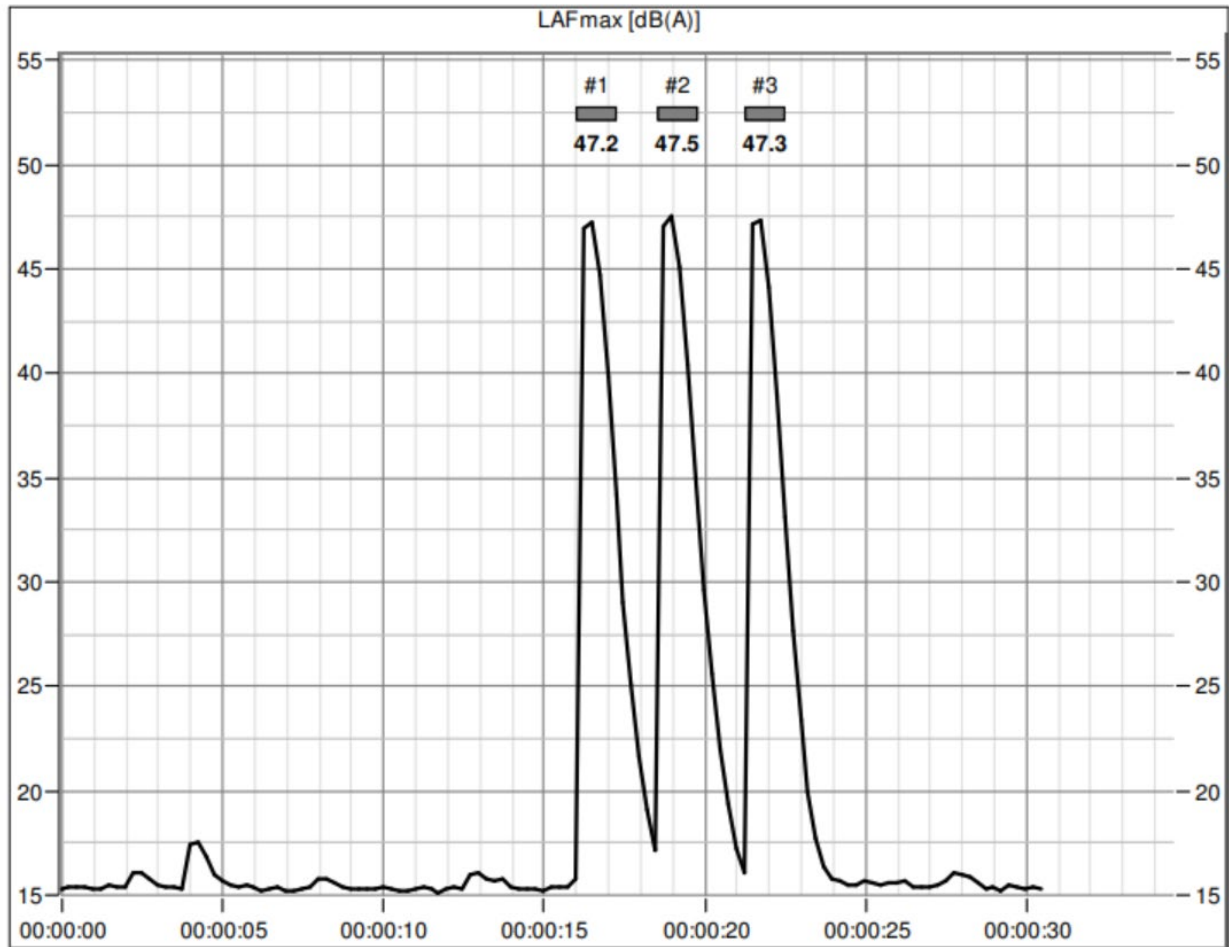


Fig. 1: Measurement result 6/162

Measurement	
Transmission room:	Room 2.2 front
Component:	Bathtub pendulum drop hammer
Reception Room:	Room 1.2 front
Measurement position:	Mip1MP6
Measurement:	20.03.2022 11:00:54
Marker position:	#1 #2 #3
Level LAFmax [dB(A)]:	47.2 47.5 47.3
Mean LAF:	47.3
Absorption correction K1:	-2 Non-absorbing single/ringing continuous noise
Level correction K4:	-12
Volume correction Cv:	0 sia 181:2020
LHTot [dB(A)]:	33
Requirement:	
LHmin [dB(A)]:	38 Met
LHincreased [dB(A)]:	34 Met
Sound type:	Use
Sensitivity:	medium

Measurement content:

6x anchor points in the floor area

6x anchor points in the wall area

6x anchor points on the edge area

Per anchor point 3 excitations were triggered with the pendulum drop hammer.
The recording device (microphone) was placed in 3 positions.

Thus, 162 excitations were measured.

Measurement result:

The mean value was calculated from the 162 excitations.

This average value results in 33.166 dB.

Conclusion:

With an average value of 33.166 dB, the desired increased sound insulation requirements according to SIA 181:2020 have thus been met.

Place / Date:

Oberarth / 09.05.2022