

Accredited field (see www.latak.lv)

SOUND INSULATION LEVEL MEASUREMENTS ON SITE (in situ)

STANDARD LVS EN ISO 16283-1:2014:

Acoustics Field measurement of sound insulation in buildings and of building elements (ISO 16283-1).

Measured parameters :

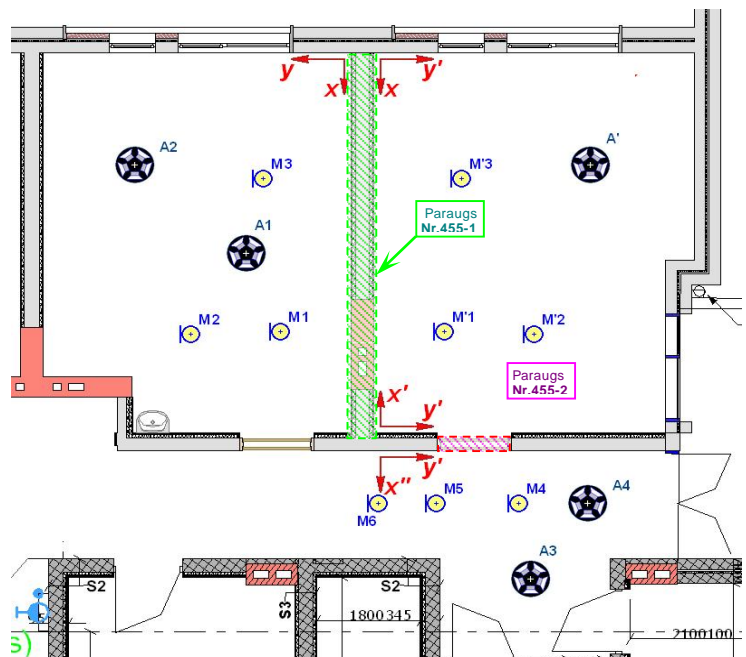
- R'** – the actual sound attenuation index in 1/3 octave bands (including bypaths)
- D_n** – the actual sound level difference in 1/3 octave bands
- D_{nT}** – standardised sound level difference in 1/3 octave bands

Calculable parameters (in accordance with standard LVS EN ISO 717-1) :

- R'_w** – the actual sound attenuation index (including bypaths)
- C, C_{tr}** – conditional household and transportation noise insulation index spectral correction
- $C_{50-3150}, C_{tr 50-3150}$** – **$C, C_{tr}$** with expanded frequency range under 100Hz (up to 50Hz)
- $C_{100-5000}, C_{tr 100-5000}$** – **$C, C_{tr}$** with expanded frequency range over 3150Hz (up to 5000Hz)

Construction standard LBN 016-15 „Building acoustics” limits parameter threshold values for internal enclosing structures (partition walls, coverings, doors) for different building classes (A, B, C and D). It is possible to evaluate construction conformity with specific building class requirements using R'_w and $R'_w + C_{50-3150}$ values.

Example of measurement.



Measurement result example (given in report with LATAK logo)

ISO 16283-1:2014. Acoustics Field measurement of sound insulation in buildings and of building

Field measurements of airborne sound insulation between rooms

Client: ξ Date of tes

Description and identification of the building construction and test arrangement, direction of measurement:
 Partition wall sample Nr. Disposition (by layers)
 1) Cement lime plastering (with putty and painted) 15 mm
 2) Claydite blocks ([density]=920kg/m³) 350mm
 3) Cement lime plastering (with putty and painted) 15 mm

Area S of separating element: 23.30 m²
 Source room volume: 120.10 m³
 Receiving room volume V: 124.40 m³

Frequency f Hz	R' 1/3 Octave dB
50	27.8
63	25.9
80	38.4
100	43.6
125	44.1
160	46.8
200	48.8
250	48.7
315	49.7
400	53.1
500	52.7
630	55.0
800	57.7
1000	57.7
1250	59.7
1600	61.0
2000	62.7
2500	63.9
3150	64.4
4000	65.1
5000	65.4

----- Frequency range according to the curve of reference values (ISO 717-1)

Rating according to ISO 717-1

$R'_w (C; C_{tr}) = 58 (-1; -4) \text{ dB}$ $C_{50-3150} = -3\text{dB}; C_{50-5000} = -2\text{dB}; C_{100-5000} = 0\text{dB};$

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method $C_{tr,50-3150} = -12\text{dB}; C_{tr,50-5000} = -12\text{dB}; C_{tr,100-5000} = -4\text{dB};$

No. of test report: Nr.4 ξ Name of test institute: Acoustics laboratory T-282

Date: Signature: