

Weighted sound reduction index R_w according to EN ISO 717-1

MLV assembly with a soft layer

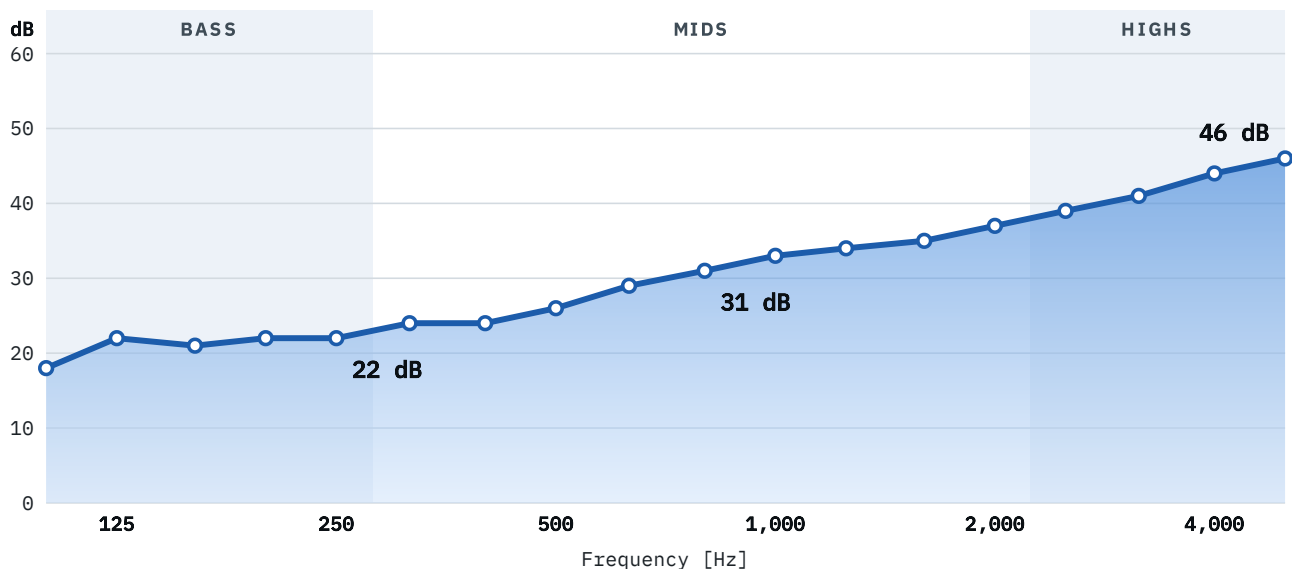
Sound insulation of the assembly: **MLV layer + soft layer** · same construction principle as the NovaSilence and FrontSilence door panels

WEIGHTED SOUND REDUCTION INDEX

$R_w = 32 \text{ dB}$

$(C; C_{tr}) = (-1; -4) \text{ dB}$

Sound reduction by frequency



— sound reduction R measured in the laboratory (in decibels)

What is R_w

A single number with which the European standard EN ISO 717-1 summarises how much sound does not pass through a partition (airborne sound insulation). The higher the value, the more sound is stopped. It is used to compare materials with each other.

How to read the chart

The chart shows the reduction in decibels separately for each frequency, from deep bass on the left to highs on the right. The higher the value, the more sound the assembly stops. A difference of 10 dB is perceived as roughly half the loudness.

How it is measured

The specimen is placed in an opening between two adjacent chambers. A loudspeaker plays in one, and in the other the amount of sound that gets through is measured. From the level difference in the 100–5,000 Hz bands (chart), the standard is used to calculate R_w from the 100–3,150 Hz bands.

Data source: laboratory measurement by Riverbank Acoustical Laboratories (USA, NVLAP accreditation, ISO/IEC 17025), report RAL™-TL13-133, measured 25 Jun 2013. The R_w value was calculated by VocalBoothToGo-EU s.r.o. according to EN ISO 717-1 from the measured values. Measured assembly: reinforced MLV with foam and nylon faces; the NovaSilence and FrontSilence door panels are built on the same principle (MLV layer + soft layer).