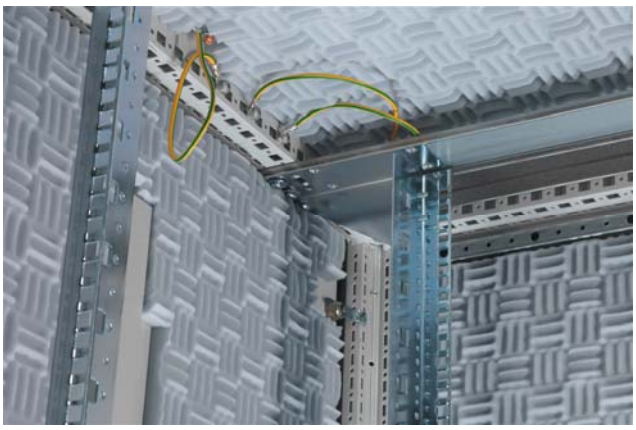
Technical data sheet

Sound absorption material
Sound insulation kit – DK 7824650



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1.1 Processing instructions

1.1.1 Handling

We recommend carrying out an adhesive test before final processing as the exact condition and quality of the substrate must always be ascertained in situ.
The self-adhesive absorber elements stick immediately; it is not possible to adjust the position of the plates later as this destroys the foam material. Press on the entire surface of the elements as far as possible to ensure uniform adhesion.

1.1.2 Processing temperature

The recommend processing temperature is between +5°C and +25°C.
Adhesion below +5°C should be avoided where possible.
The adhesive effect increases with the level of surface pressure during adhesion.
The elements should be stuck without compression or tension.

1.1.3 Substrate

The substrates must be level, clean, dry, solid, stable and free of dust, oil and wax.

1.1.4 Applications

The self-adhesive absorber elements are particularly suitable for sticking onto smooth, even, non-absorbent substrates.
The elements stick securely onto substrates such as steel plate with a galvanised or painted surface, stainless steel or various plastics.

1.1.5 Durability

The resistance of the adhesive connection has been tested and verified as part of a climate change test based on the VW testing standard 1200.

1.2 Material properties

1.2.1 Material

Flexible foam based on melamine resin inc. layer of dispersion acrylate based adhesive pre-applied on one side.
General building authority test certificate: P-NDS04-291

1.2.2 Material thickness

The maximum material thickness including honeycomb structure is 20 mm.

1.2.3 Material class

Material class under DIN 4102:
B1 (low flammability)

1.3 Absorption behaviour

1.3.1 Level difference measurement using comparative sound source

Measuring object: Network enclosure TS, DK 7830.200

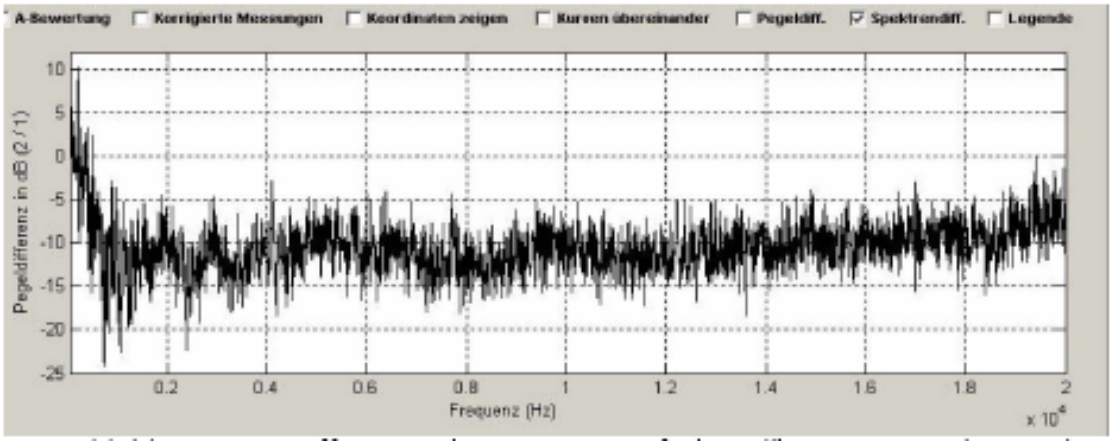

Figure 1.3.1 – 1 Difference spectrum recorded at front -
Original condition / single insulation, with comparative sound source in [dB]
[Level difference dB / Frequency Hz]

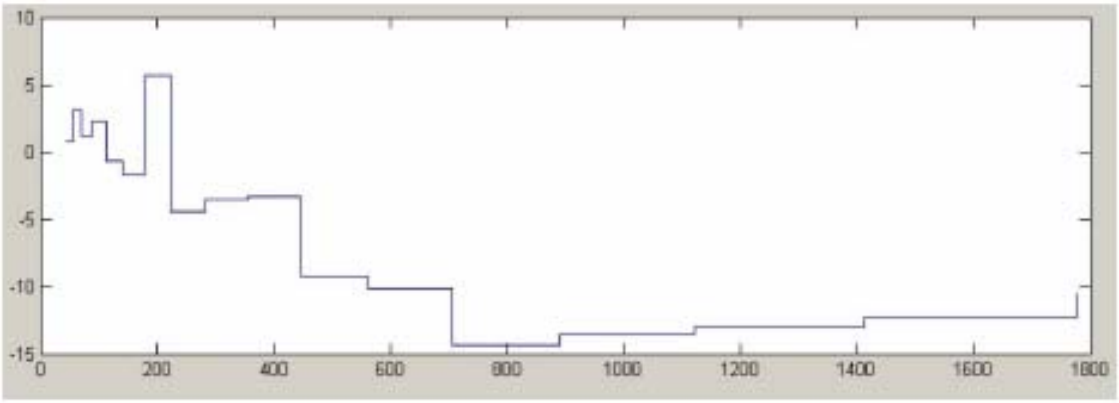

Figure 1.3.1. – 2 Difference measurement recorded at front, as third spectrum in [dB]

1.3.2 Average level reduction for comparative sound source

Level reduction in dB(A) for operation of comparative sound source:

- Comparison of lined s with non-insulated original condition
- Frequency range 50 Hz – 20 kHz
- Measurement at 1m standard distance

Comparison of sound intensity level, original condition / insulated version:

Average level: -10.6 dB (A)

1.3.3 Level of absorption of material depending on frequency of sound occurring

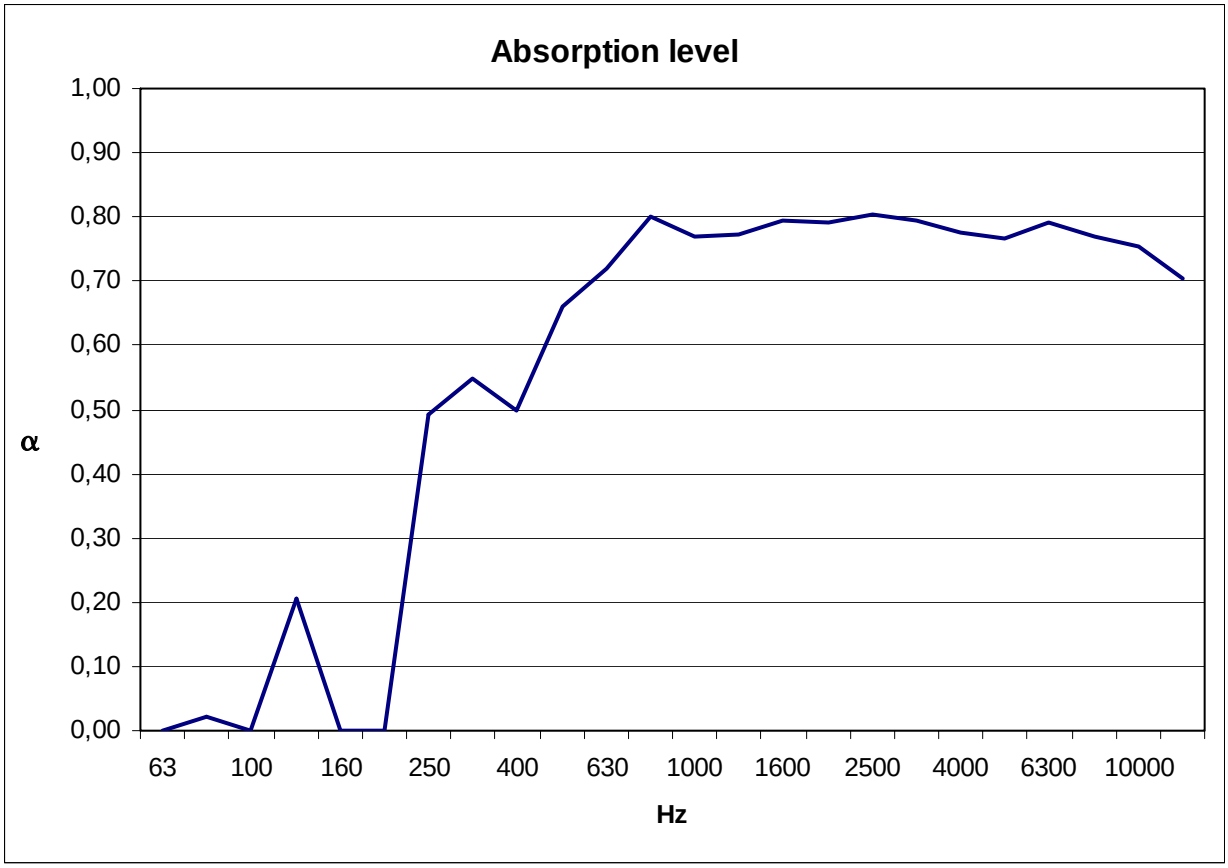

Figure 1.3.3 - 1 Recorded absorption level of material [α] depending on frequency [Hz] of sound occurring

1.4 Optimisation options

The side panels secured at only certain points using the location aids and cam locks can have a negative impact on the absorption behaviour of the housing as increased sound emissions can occur in the non-secured gaps between the fixing points. A significant improvement can be achieved by additional fixing, e.g. using internal locking DK 7824510 or alternatively by using bolted side panels.

Additional improvements are possible through acoustic isolation of the housing components and assembly components.

The use of a control loop within the climate control system (e.g. in the form of a temperature controlled, speed regulated ventilator) reduces sound emissions from the climate control system to the necessary minimum.