

SOUND INSULATION ATIS COMPOSITE WALL



Product description ATIS Composite wall is a tailor-made sound-absorbing and sound-insulating wall (mobile, if required) constructed from ATIS sound-absorbing and sound-insulating elements (single-sided or double-sided). An ATIS sound-absorbing and sound-insulating element is constructed of a 1.5-mm single-sheet thermal galvanised steel plate. This plate is mounted and the element is filled with a special sound-absorbing glass wool with a compression of 20 kg/m³. This absorption material produces a high absorption coefficient over a wide frequency range. The layer of glass wool is covered with an acoustic transparent cover fleece layer. If the glass wool can come into contact with water, oil or chemicals, an acoustic transparent PE foil is applied. For protection, a 1.0-mm single-sheet galvanised perforated steel plate is applied to the side of the cover fleece layer. The degree of perforation is 33%, which guarantees the optimal functioning of the absorption material. The total element thickness is 55 or 105 mm respectively; the mass is 21 or 22 kg/m² respectively. The wall and filling are germ-free and anti-rot and are not combustible in accordance with NEN 6065, class 1.

- Properties**
- Sound waves that fall on these walls are largely absorbed; this results in only a minor sound increase on the side of the source.
 - This type of wall is available as a stationary, moveable or mobile wall.
 - Moveable or mobile walls are generally for indoor use; non-mobile walls are also often used outside.
 - If desired, the wall can be supplied with hinged doors, sliding doors, sliding or hinged hatches and windows.
 - The walls are available in stainless steel, aluminium and in colour.

Application

Cabin construction and mechanical engineering, to:

- Separate spaces with very different sound levels
- Shield off people from the sound source
- Shield off sound sources in order to meet legal requirements (e.g. on the site boundary)

The effect of a composite wall is best indicated by the insertion loss. The insertion loss is the difference between the measured sound levels *before* and *after* the installation of the wall, measured in the same conditions and in the same place. The dimensions of the wall are determined by the required insertion loss and the distance source – wall-recipient. The largest insertion loss is attained by placing the wall as close to the source as possible. The attainable insertion loss usually lies between 5 and 15 dB(A).

Indoor storage can reduce the functioning of a composite wall significantly, as the sound waves pass around the composite wall via the ceiling or the walls; this can be solved by applying sound-absorbing material to the ceiling and walls.

Dimensions

Wall constructed of standard panels of:	2000 x 1000 mm
	2500 x 1000 mm
	3000 x 1000 mm
Tailor-made composite wall available	

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