IVI-Metal Wall SW SOUND-INSULATING PARTITION WALLS



When spaces need to be separated quickly, lightly and soundproof, the IVI-Metal Wall SW is the appropriate product.

In construction, plasterboard walls with metal C- and U-profiles are used because they can be installed quickly and flexibly. The **IVI-Metal Wall SW** (partition wall) works according to the same principle, except that these partition constructions are applied uncoupled and thus optimized for sound insulation. As a result, a partition wall with relatively little mass can still achieve a very high sound insulation.

Benefits:

Quick and easy to process

Light construction with high sound insulation values

Variable cavity

Good performance in low frequencies

Description

Partition walls based on metal C- and U-profiles owe their sound-insulating effect mainly to the flexible nature of these constructions. To reinforce this effect, it is necessary that the structures are disconnected from each other and from the existing surface. For this reason, a high-quality felt is used at connection points in the IVI-Metal System, a material that also blocks impact sound.

A high sound insulation value of a partition wall is determined by the following factors:

- Construction by means of a double wall
- The flexibility of the sheeting
- The weight of the sheeting
- Cavity depth and amount of absorption material
- The degree of uncoupling between the two wall parts
- The airtight finish



Above: IVI-Metal System construction Right: IVI-Metaalregel

By increasing the cavity depth and using more filling, the insulation value of the wall can be increased. In this way, the IVI-Metal System can achieve sound insulation that was previously only possible with expensive systems.

Since the channels can be installed at any distance, the cavity depth is variable. This cavity is (partially) filled with an absorbent material. Optionally, **IVI-Absorptiewol**, rock wool, glass wool or any other absorption material can be used. The suppliers concerned have materials that are tailored to the IVI-Metal System. The advantage of the IVI-Metal System is that with a total wall thickness of 200 mm, the cavity depth is already 150 mm (wall thickness minus 4 x 12.5 mm plating) and can therefore be used to separate homes.





Applications

Partition walls with higher sound insulation requirements, such as home separation, cinemas and theatres.

Processing

The IVI-Metal System SW uses IVI-Metaalregels instead of standard U-profiles to build two separate frameworks. These channels have holes (c.t.c 300 mm) where the felt (and thus the channel) can be fixed to the existing construction. By default, C-profiles are used as uprights. Sometimes it is necessary for the stability of the construction to connect two independent uprights, then a special resilient spacer, the IVI-Afstandhouder, must be used. The C-studs are then fitted on both sides with a double overlapping layer of two plasterboards resting on the protruding felt of the IVI-Metaalregel.

For large projects, customization of the product is possible, such as wider felt for three sheets of plasterboard or having the felt protrude only on one side for a smaller cavity between the two frameworks.

The IVI-Metal System SW has been tested at Peutz for its sound-insulating qualities. See the graphs for the sound proofing values.

The IVI-Metal System SW has also been tested for fire resistance at TNO, with a result according to NEN 6069:2001 in conjunction with NEN-EN 1364-1:2001 of 75 minutes.

Specifications

The IVI-Metal System SW as a complete system consists of:

- IVI-Metaalregels 50, 75 or 100 mm
- IVI-Afstandhouders (spacers)
- Metal C-profiles 50, 75 or 100 mm
- Absorption material
- 4 x plasterboard sheets 12.5 mm x 600 mm
- Nailable plugs/screws with washers
- Plasterboard screws
- Acrylic sealant

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IVI-Metal System SW 2x75 mm



