

# IVI-Metal Wall VW



## PROFESSIONAL SOUND INSULATION OF WALLS

Sound insulation in buildings has become a major focus of attention. Not only are the demands in this sector rising, the legal standards have also become considerably more stringent. So it comes as no surprise that more and more questions are being asked on how to achieve good sound insulation. Nevima has over 60 years of experience in sound insulation and offers solutions with various products. The IVI-Metal Wall VW (dry lining) is one of them.

### Description

To improve sound insulation, the installation of plasterboard lining is the most effective solution. Plasterboard lining based on metal C-studs and U-channels owe their sound insulating effect mainly to their flexible characteristics. In order to maximize this sound insulation, it is necessary to completely decouple these metal frames from the support structure. The **IVI-Metal Wall VW** provides an acoustically decoupled wall based on metal channels. The **IVI-Metaalregels** were developed for this purpose, and are therefore equipped with permanently resilient felt and have a patented fastening method. The system is suitable for fast and cost effective assembly, flexible cavity depths and large dimensions. The use of the IVI-Metaalregel not only results in high sound insulation, it also prevents flanking sound transmission.

### System composition

IVI-Metaalregels and standard C-studs create a decoupled frame. The IVI-Metaalregel is composed of two layers of acoustic felt and a metal U-channel. A sound absorption material should be placed between the studs and the back wall. Possible products for this are **IVI-Absorptiewol**, blown cellulose or a mineral wool. The C-studs are then fitted with (double) cladding of, for example, plasterboard, gypsum fibreboard or a combination of plasterboard with board underlay. It is very important that this cladding is also decoupled at the edges. To this end, a 20 mm wide strip of 8 mm thick felt protrudes on both sides of the IVI-Metaalregel. The most common plating of 2x12.5 mm plasterboard will rest on this felt. The 5 mm cavity that remains is for the sealant filling, which makes the construction airtight.

To increase the airborne sound insulation, for example in case of nuisance from pop music, the cavity can be increased. This can be simply done by placing the IVI-Metaalregel further from the existing wall. The width of the IVI-Metaalregel to be applied depends on the height of the wall.

The board suppliers provide the guidelines for this. To reinforce the plasterboard lining construction, an acoustically decoupled



### Benefits:

- ✓ Easy, fast and pleasant to install
- ✓ Light construction with high sound insulation values, especially at low frequencies
- ✓ Acoustically high-quality variant of the tried and tested system of metal C-studs and U-channels
- ✓ Sustainable
  - Made from reused and reusable raw materials
  - The elastic properties of felt are not subject to aging
- ✓ Universally applicable
- ✓ Increases thermal insulation and prevents thermal bridges

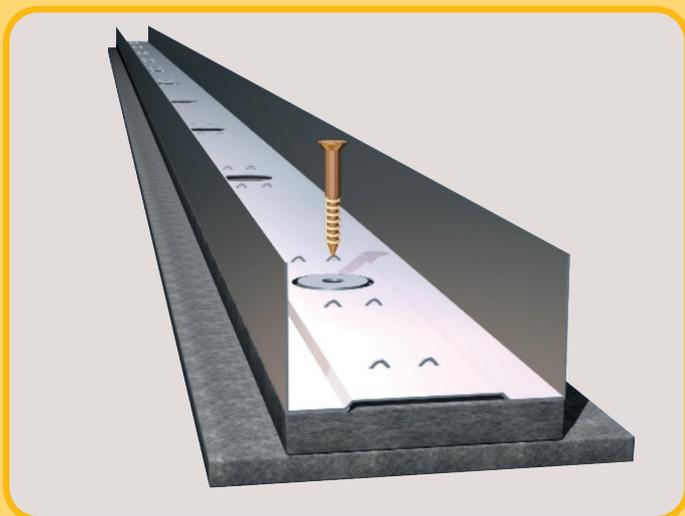
fixation to the wall can be made with the **IVI-Afstandhouder** (spacer).

## Acoustic properties IVI-Metal Wall VW

	Rw	$\Delta R_w$	Ilu	$\Delta I_{lu}$	RA <sub>pop</sub>	$\Delta RA_{pop}$	DnT,A	$\Delta DnT,A$
100 mm sand-lime brick wall (175kg/m <sup>2</sup> )	43	-	-10	-	36	-	41	-
with IVI-Metal Wall VW 80 mm cavity*	68	25	+15	25	53	17	65	24
with IVI-Metal Wall VW 160 mm cavity*	70	27	+17	27	57	21	67	26

\*system including rock wool and 2x12.5 mm plasterboard cladding. Dutch reports available on request.

## Technical properties



### IVI-Metaalregel specification

Standard U-channel widths: 50, 75, 100, 125 and 150 mm.  
 Height U-channel: 40 mm, length 3000 mm.  
 Thickness U-channel: 0.6 mm Sendzimir galvanized steel  
 Felt: 2 layers, upper felt strip 13 mm thick with the same width as the U-channel. Bottom felt strip 8 mm thick, standard on both sides 20 mm wider than the U-channel (can be adjusted on a project basis). Felt mechanically secured.  
 Holes: round 30 mm, c.t.c distance 300 mm, pre-punched holes in felt for nailable plugs/screws with washer.



### IVI-Afstandhouder specification

Standard width U-channel: 50 mm.  
 Height U-channel: 40 mm, length 200 mm.  
 Thickness U-channel: 0.6 mm Sendzimir galvanized steel  
 Felt: 2-layer, 21 mm thick with the same width as the U-channel. Felt mechanically secured.  
 Holes: in the middle of U-channel round 30 mm, pre-punched hole in felt for nailable plugs/screws with washer.

Nevima products have been used successfully for many years to insulate the sound burden from, for example, neighbours, the hotel and catering industry, cinemas, aircraft and traffic noise. Please refer to the references on our site.

### A product of Nevima B.V.

Supplier of products for sound insulation, sound absorption, floating screeds and bearing materials.

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