

CDM-ISO-BAM-C

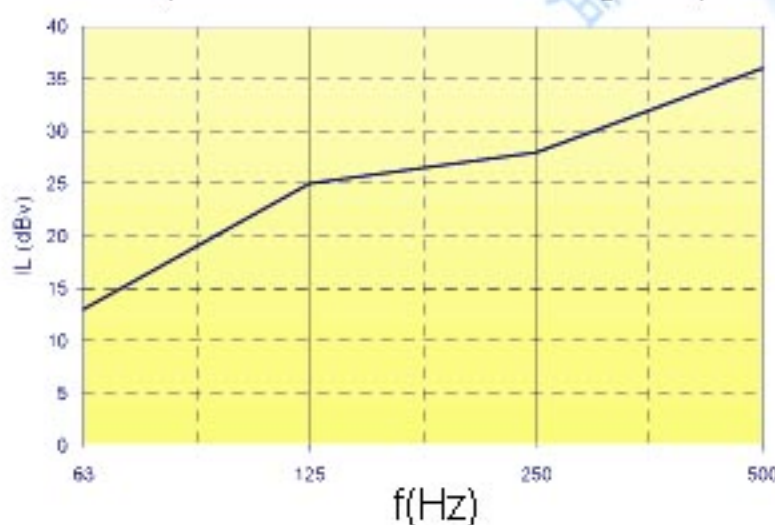
The CDM-ISO-BAM-C is a Continuous Mat Ballast Mat which is specifically designed for reducing the vibrations, caused by rolling stock (trams and trains). The CDM-ISO-BAM-C is installed at foundation level and on the vertical surfaces of the ballast pit. The system provides a high performance massspring-mass system, resulting in low resonant frequencies and high isolation efficiency.



Advantages:

- 1 The CDM-ISO-BAM-C system provides a high level of vibration isolation: considerable insertion losses are achieved (see graph below)
- 2 Straightforward installation
- 3 The CDM-ISO-BAM-C system can be designed to site specific characteristics and performance requirements

Insertion Loss (IL)
(test info from an existing site)



system description:

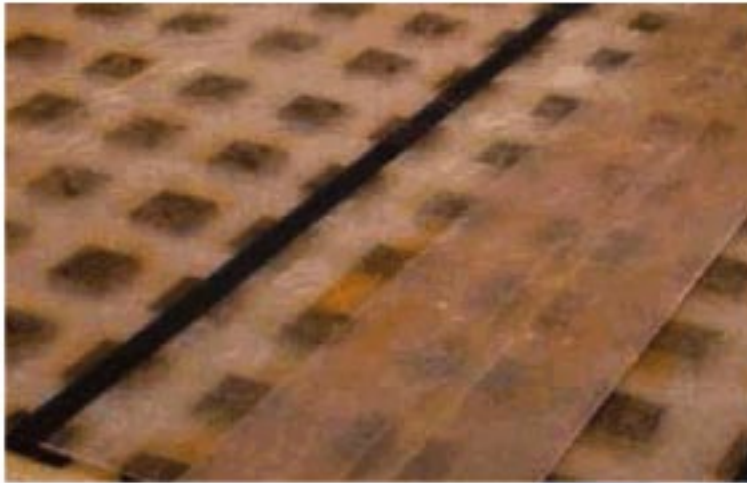
The CDM-ISO-BAM-C system consists of two components:

- 1 A continuous elastomer mat
- 2 A protection mat on top

(Usually an identical ballast mat is used to treat the vertical sides of the ballast pit)

CDM

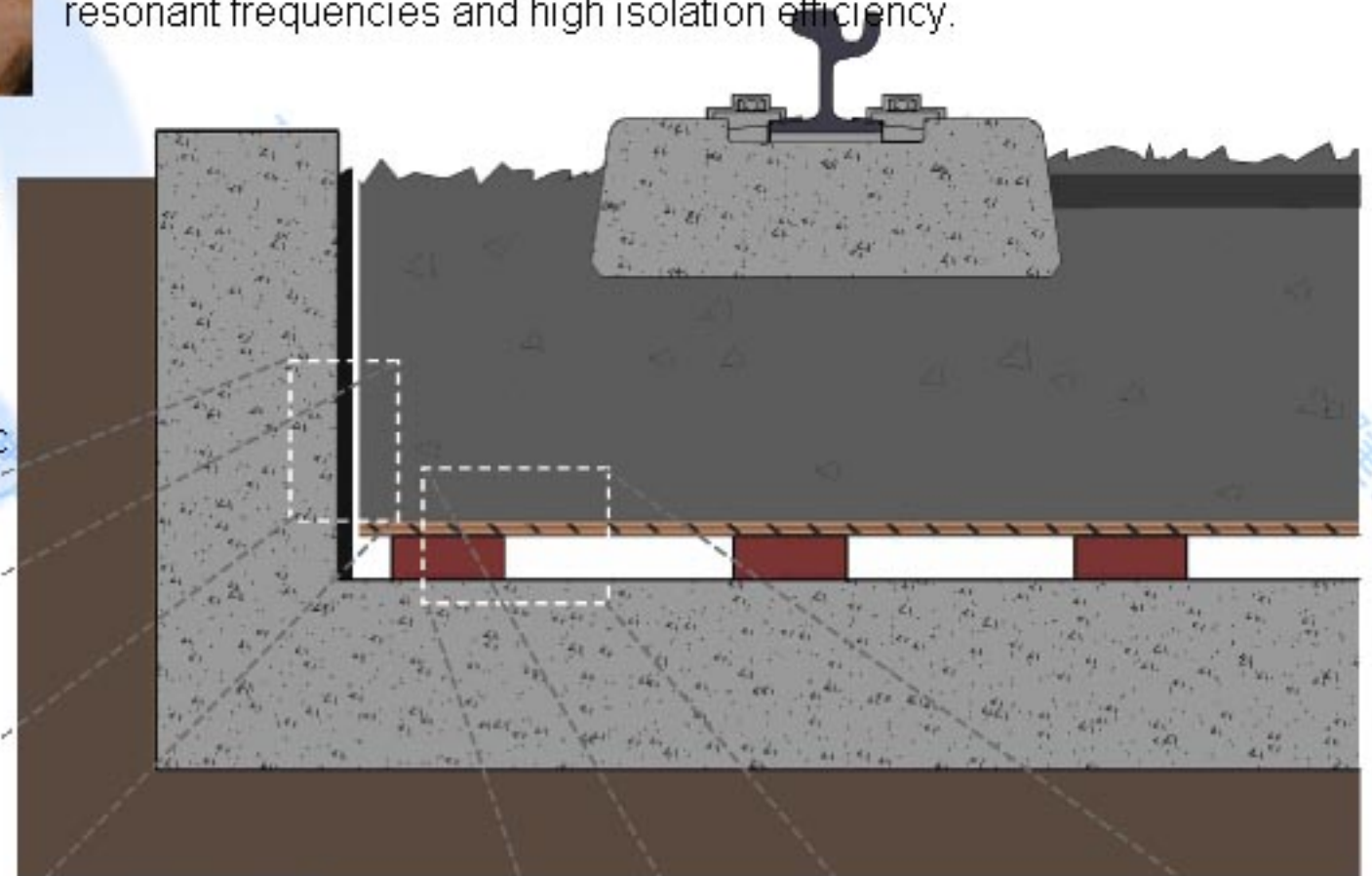
CDM-ISO-BAM-P



The CDM-ISO-BAM-P is a Discrete Pad Ballast Mat which is specifically designed for reducing the vibrations caused by rolling stock (trams and trains). CDM-ISO-BAM-P consists of discrete resilient bearings fixed to the under-side of formwork panels. These are used in conjunction with continuous mat isolation on the vertical sides of the ballast pit. The system provides a high performance mass-spring-mass system, resulting in low resonant frequencies and high isolation efficiency.

The CDM-ISO-BAM-P achieves an insertion loss of approximately 15 dBV in the important frequency range

The CDM-ISO-BAM-P system can be designed to accommodate site specific characteristics and performance requirements



The CDM-ISO-BAM-P consists of (from bottom to top):

- 1 Resilient bearings
- 2 Formwork panel, eg. a glass-fibre polyester reinforced sheet
- 3 Protection mat, consisting of a bituminous layer with geotextile
- 4 Continuous ballast mats, CDM-ISO-BAM-C, are used for the vertical surfaces of the ballast pit

CDM

CDM-ISO-DFMA



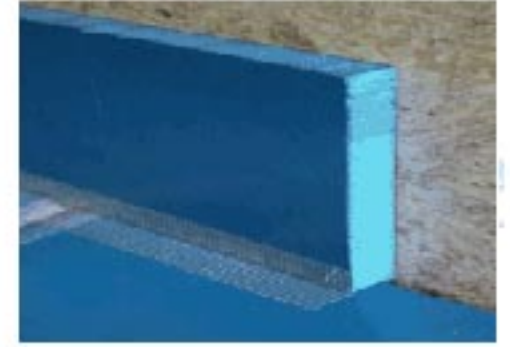
Installation of the resilient mat



PE protection layer



pouring of the concrete,
installation of the track and
road finish

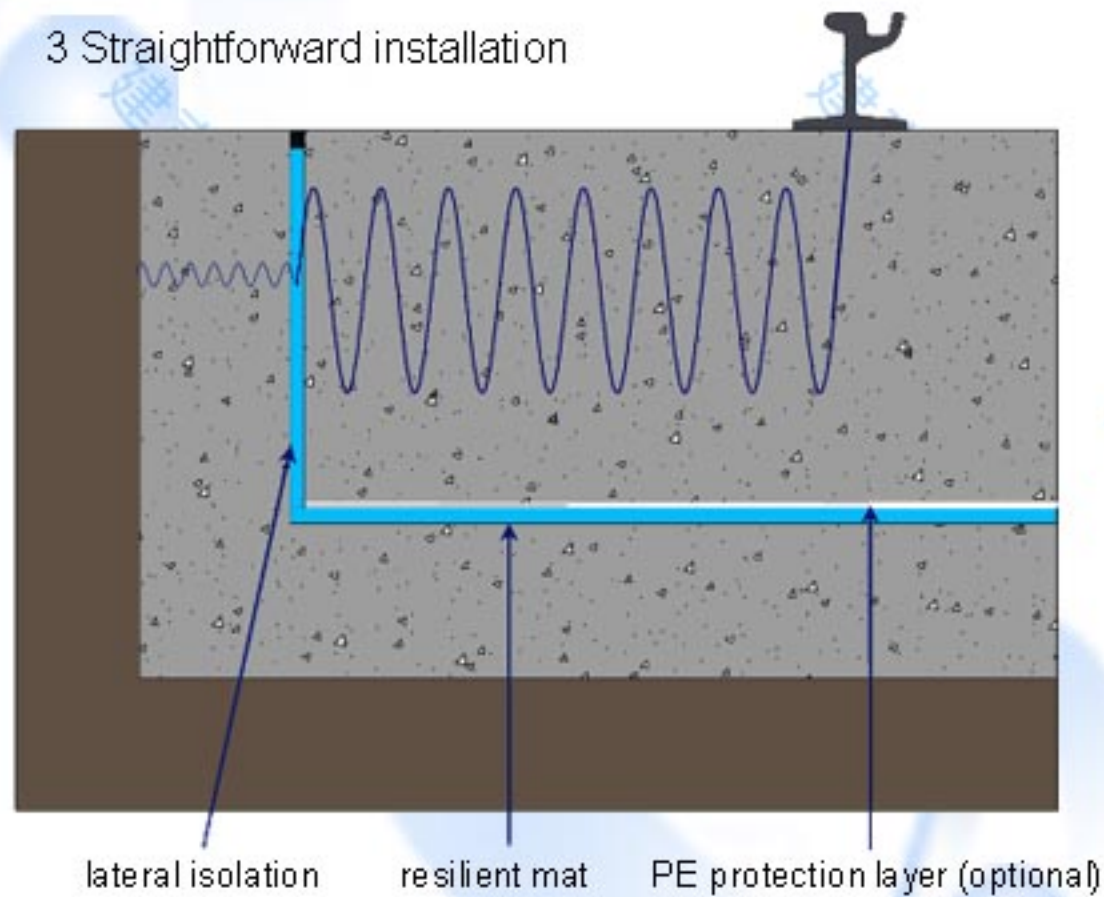


The CDM-ISO-DFMA is a Continuous Mat Floating Slab Track (FST) vibration isolation system. The system is based on the principle of a concrete floating trackbed on continuous elastomer material. The vibration isolation performance can be tuned by changing the stiffness of the isolation mat, by changing the suspended mass and by changing the stiffness of the supporting structure.

1 The CDM-ISO-DFMA system achieves insertion losses of > 15 dBV in the predominant frequency range (31.5-125Hz)

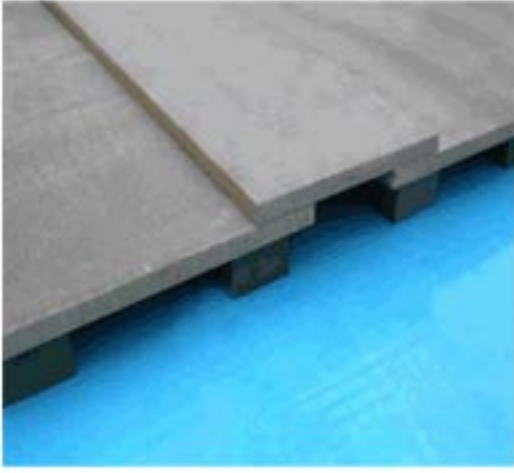
2 The CDM-ISO-DFMA can be used for any railtype / track system

3 Straightforward installation



CDM

CDM-ISO-DFPA/DFSA



The CDM-ISO-DFPA is a Discrete Pad / Strip Floating Slab Track vibration isolation system. The system is based on the principle of a concrete floating trackbed on discrete resilient bearings. The vibration isolation performance can be tuned by changing the stiffness of the elastic material, by changing the suspended mass and by changing the stiffness of the supporting structure.

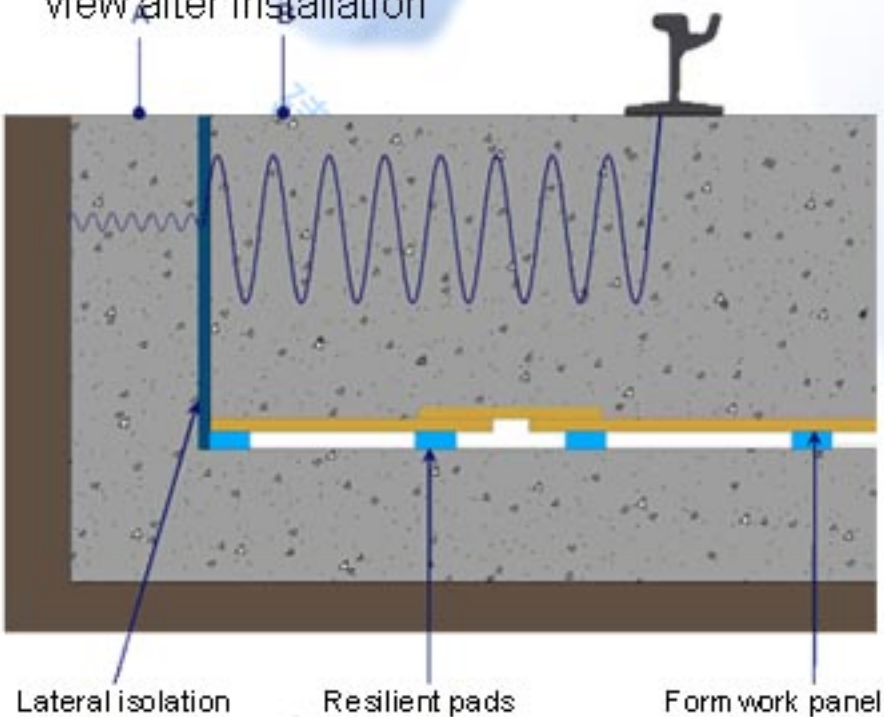
1. The CDM-ISO-DFPA system achieves insertion losses > 20 dBV in the predominant frequency range (31.5-125 Hz)

2. The CDM-ISO-DFPA system offers a high level of control and flexibility over the dynamic and static behaviour of the track. It is totally adaptable to the site specific characteristics and performance requirements

3. The CDM-ISO-DFPA can be used for any railtype / track system

4. Straightforward installation

view after installation



Transmission Loss $TL = -20\log(A/B)$
(test info from an existing site)

