

Tramway of Bordeaux, FR



Floating Slabtrack CDM-DFMA



CDM Partner
Permanent Way Owner
Overall Designer
Acoustic Consultant Design
Acoustic Consultant/Client
Client

Typical Project Data:

Type of Rail
Axle Load
Gauge

Specifications for FST

Condition
Thickness of slab
Static Bedding Module requirement
Dynamic Bedding Module requirement
CDM Supply
Total quantity of mats

Execution
Operation

Acousystem (CDM France)
CUB
Systra
SerdB
D2S International
ALSTOM SPIE-COGIFER Consortium

35GP
< 120 kN
Standard

Atmospherical
400 mm
> 9 MN/m³
< 24 MN/m³
DFMA-L13 mat (CDM-PF family)
> 30000 m²
2002-2003
2003

For this project, a floating slabtrack was installed on the new tramway, e.g. Cours Gambetta, Rue Tausia, Cours de l'Argonne,...



1.



2.



3.



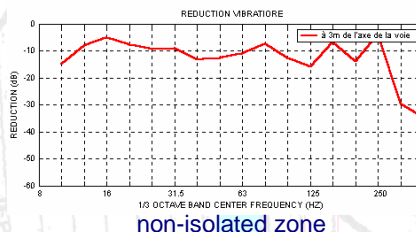
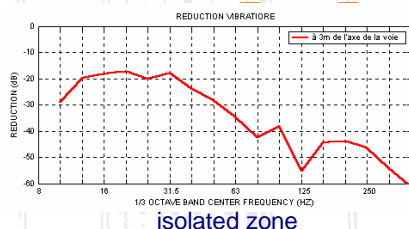
Test setup isolated zone

The performance of this floating slabtrack was tested in situ^(*) at two sections: a section through the floating slabtrack (-20 dB) and a section in a non-isolated zone.



Test setup non-isolated zone

On the following graphs the results are given for the vibration reduction between a point near the rail and a point at 3m distance from the rail.



On the graph of the isolated zone, an attenuation superior to 35 dB is achieved for frequencies in the range above 63 Hz. On the other graph a constant attenuation of 10 dB was measured between the two points. This results in a vibration reduction superior to 20 dB, which was the objective.

(*) The tests were performed by D2S International (www.d2sint.com)

Installation pictures

1. View on the elastic mat (only installed on the bottom), which is made of blue polyurethane foam of light density; the lateral sides are decoupled with another type of elastic mat.
2. The installation of the steel reinforcement grid on top of the elastic mat
3. Overview of the concrete works



CASE STUDY - CDM-ISO-TRACK

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