

SUCCESS STORY

VIBRATION ISOLATION

Fragment housing project, Prague

PROJECT DATA

Brief description

The exceptional construction of the Fragment residential project required selected elastomeric bearings for vibration isolation due to different loads on the floor surface.

Requirement

Protection against vibrations and secondary airborne noise caused by train traffic must be considered for the building.

City, year

Prague, 2020 – 2022

PROJECT DESCRIPTION

The Fragment building in Prague's Karlín district, has been realised close to a tram line and an underground line below. The building comprises basement levels of parking, a first floor of commercial use and about 8 upper floors of residential use. The passing trains exert dynamic forces on the superstructure, the tunnel and the underlying soil. This results in vibrations in the building.

SOLUTION

The elastic bearing was implemented on an area of approx. 1200 m² with a combination of Cibatur® as well as Cipremont® and Citrigrion® modules for a load range of 0.4 N/mm² to 7 N/mm². The bearings were installed as single and strip bearings between the first floor and the second floor. The average tuning frequency was 12 Hz.



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