

SUCCESS STORY

VIBRATION ISOLATION

Residential buildings, Munich and neighborhood

PROJECT DATA

Brief description

Elastic decoupling of private residential buildings.

Requirement

Elastic isolation layers at buildings against vibration and secondary airborne noise immissions caused by railway traffic.

City, year

Munich and neighborhood, 2020

PROJECT DESCRIPTION

The project includes two single-family houses, one semi-detached house and two structures containing apartments, which are close to a railway line. The vibration and secondary airborne noise immissions caused by railway traffic exceeded the limits of a technical guideline, therefore protective measures are needed. With dynamics expert's analysis, clients were offered economical and technical efficient solutions that ensured living in residential comfort.

SOLUTION

Single-family houses in Gräfelfing: In the first house near the railway line, Cibatur® was installed in two layers and in the second house in one layer under the foundation. Civerso type A was mounted doubled layered at front outer basement wall (facing the railway line) and single layered on the flank sides.

Semi-detached house in Gröbenzell: The basement of the house is located beneath groundwater level. Since the dynamic immission was not very intensive, Cimax® strip-layer as one layer was installed under it's foudation. The intermediate areas were filled with two layers of Civerso type A.

Residential buildings with basement in Bauseweinallee: In the area close to railway line, Cibatur® was used in two layers under the foundation and in the rest area in one layer Cibatur® and Civerso type A in different thickness were installed at the outer basement wall, depending on the immission intensity and earth pressure.



Single-family houses in Gräfelfing, installation of Cibatur® in one and two layers under the foundation



Semi-detached house in Gröbenzell, Cimax® is installed under the load-bearing walls due to groundwater



Residential buildings in Bauseweinallee, Cibatur® installed in one and two layers