

BUILDING LAND DEVELOPMENT

QUELLENPARK BAD VILBEL



Building base isolation
Project Quellenpark,
Bad Vilbel, Germany





BUILDING LAND DEVELOPMENT NEXT TO RAILWAY TRACKS

The metropolitan area around Frankfurt (Main) has gained more and more importance in the recent years. With a population of 5.83 Mio the region ranks number four in the statistics about Germany's eleven biggest urban regions.

Additionally, the city of Frankfurt is - beside London - the heart of Europe's financial services and therefore attracts companies along with their employees as well as the real estate sector.

Good news for all cities and municipalities within the suburban environment that have a good connection to Frankfurt's transport infrastructure. With its train station (connection to regional lines) and metro station (connection to metro line S6) Bad Vilbel is one of these cities. Unsurprisingly the housing market in Bad Vilbel is booming as the city is well located in the Northeast of Frankfurt.

However, with such railway infrastructure there are many challenges regarding noise and vibration mitigation to overcome.





The housing precinct “Quellenpark” has successfully managed these obstacles. A 300-meter-long building complex has been built parallel to the railway track in a distance of just 14 m. Thanks to an elastic decoupling of the building’s strip foundations this development is being protected against ground-borne vibration and secondary air-borne sound.

The building base isolation was planned by the engineering company Krebs + Kiefer Fritz AG from Darmstadt. Different products from the **REGUPOL vibration range** have been used to realize a low-frequent isolation of 8 Hz. Thus, all requirements concerning the protection against noise and vibration emissions of the railway line have been fulfilled.



Project details

- 36 townhouses
- Isolated MEP rooms integrated in the building
- Over 300m building base isolation with **REGUPOL vibration** products
- Sustainable housing development with outstanding infrastructure and excellent connection to public transport

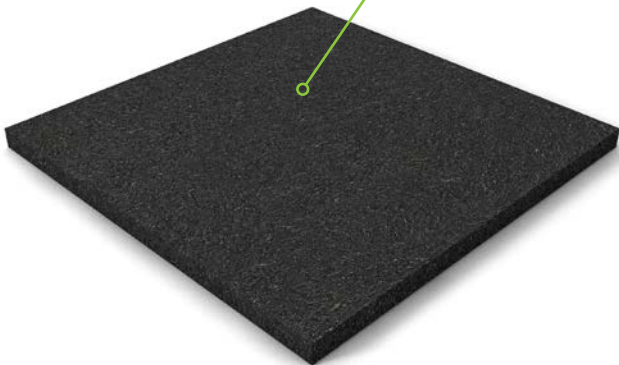


This type of vibration isolation was key to develop such valuable building land in close proximity to the railway infrastructure. Moreover, the building complex saves the high living quality for residents in Bad Vilbel's district "Quellenpark".

The **REGUPOL vibration range** is made of recycled materials, the majority being recycled rubber from car tires. All products are certified with Germany's national technical approval which includes external third-party monitoring of the production and its technical properties. This guarantees the performance of the material over decades when used as building base isolation.

Extensive material testing of the **REGUPOL vibration range** at the Institute for Technology in Karlsruhe (KIT) led to the estimation that the vibration isolating properties remain for more than 50 years.
Contact us for more information.

REGUPOL vibration range



The technically approved **REGUPOL vibration range** provides a product portfolio of eight types, that can be used within load ranges of 0.002 N/mm² to 1.5 N/mm².





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