

SILENT URBAN LIVING IN YOKOHAMA

CASE STUDY

Japan's 1st Building
Isolation Project
with Sylomer®

EFFECTIVE PROTECTION
AGAINST METRO
VIBRATIONS



SUSTAINABLE PROTECTION AGAINST VIBRATIONS FOR LUXURY HOTEL AND RESIDENTIAL BUILDING

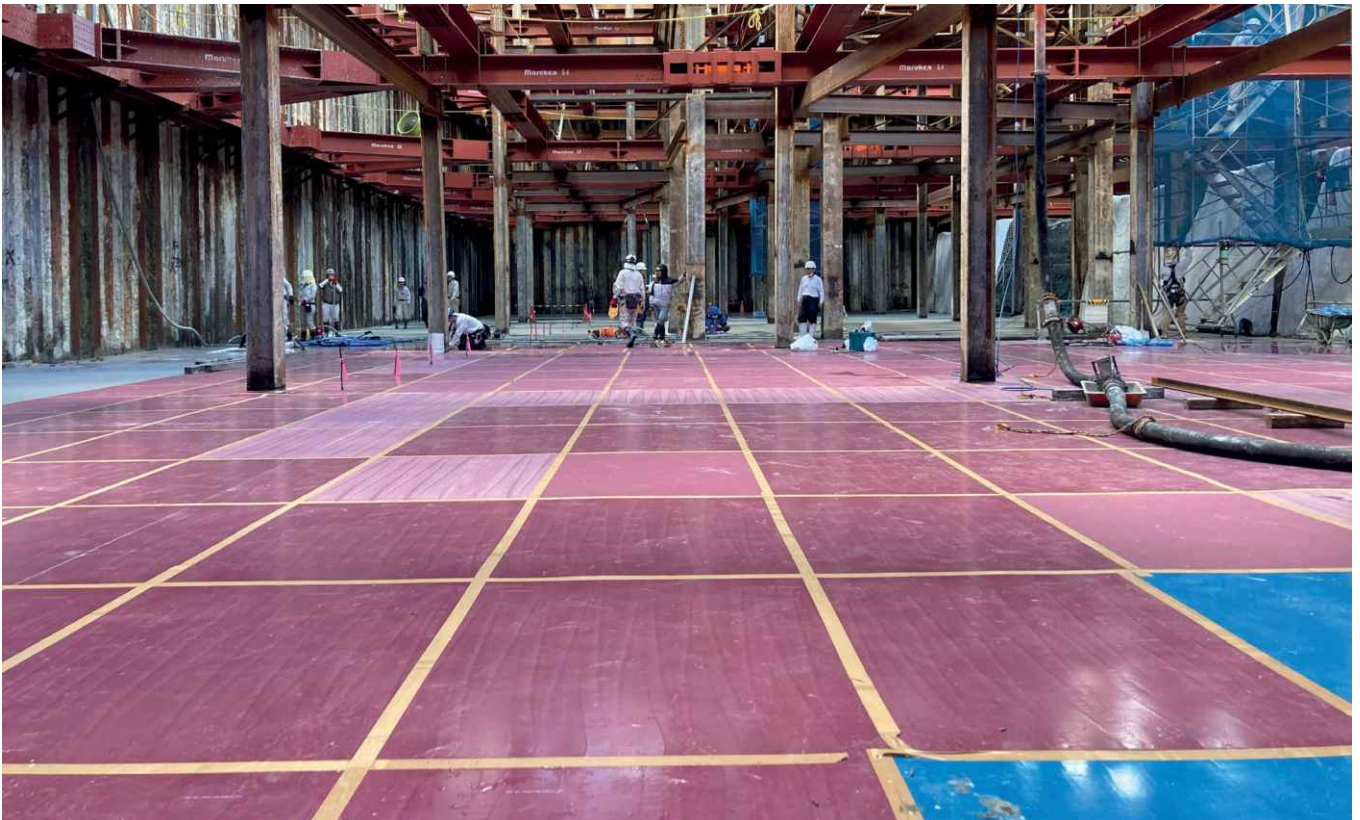
The project

Yokohama is the second largest city in Japan after Tokyo and is located approximately 30 km southwest of the capital. The extraordinary project in the Kitanaka-dori Kita district is located in the 'Yokohama City Center and Waterfront Area' and is part of the urban revitalisation.

The 42-storey building has 40 floors above ground and two underground levels. It offers one of the best views in the city. When it opens in 2027, the lower 16 floors will house a luxury Hilton Group hotel with 272 guest rooms, luxury restaurants, recreation areas and rooms for banquets and conferences. The upper floors will provide space for an exclusive rental residence comprising a total of 224 units with

average floor areas of more than 100 m². All apartments will have fully glazed exterior fronts, offering breathtaking views of the Pacific Ocean and the Minato Mirai district.

In the south-western section, the Minatomirai Line, one of the city's busiest metro lines is running beneath the building. In order to guarantee guests and residents quiet and recreation, the building which is constructed in reinforced concrete with additional steel-frame sections, is entirely decoupled by an elastic PU vibration isolation system below the basement level, ensuring safe and stable support while simultaneously protecting against unwanted vibrations from the existing metro line.



The foundation was covered with Getzner elastomers within just a few weeks. The transmission of vibrations and noise from the metro line below to the building is effectively dampened.

» ***"Sylomer® impresses with its good vibration isolation, high load-bearing capacity and long-term durability."***

Yoshinori Inoue, Manager, AGK Acoustic Engineering Co., Ltd.

The Getzner solution

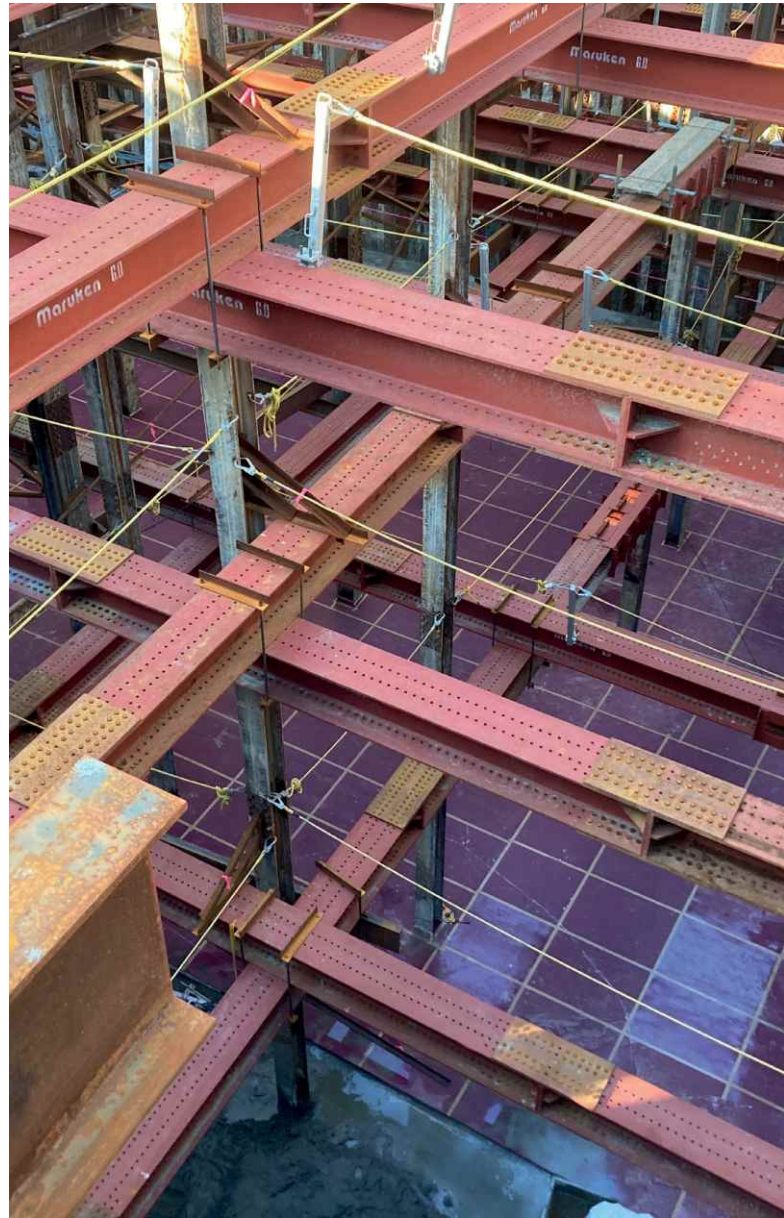
In the original project planning, explicit isolation against immissions caused by the existing metro line was only considered for a part of the building foundation. Since the requirements for isolation against noise and vibrations were to meet those of a luxury hotel, the commissioned specialist 'AGK Acoustic Engineering' received a request for consultation. AGK was able to convince the general contractor and the architectural design office with the Getzner solution. "With Sylomer®, we were able to work out a perfect proposal due to its excellent vibration isolation, high load-bearing capacity and long-term durability," summarizes Yoshinori Inoue, Manager at AGK Acoustic Engineering.

Planned, delivered, installed

Getzner supported AGK with the analysis of the construction project, material selection and efficiency calculations. Although its tight delivery schedule, Getzner supplied materials in time and over 3500 square meters of the high-tech elastomer were installed without problem. In order to achieve the best possible effectiveness of these protective measures, the team of experts selected Sylomer® materials of different stiffnesses and construction heights. This allowed the desired spring properties to be ideally adapted to the design and load in accordance with the required isolation performance.

Sustainable protection

In addition to the more than 1000 successfully implemented project references worldwide, the architectural design office was also convinced by the calculations presented by Getzner regarding the durability of the material with a maintenance-free life of 50 years and more. The guaranteed dynamic properties of Sylomer® provide reliable and efficient protection against vibrations and noise caused by the close-by metro line, thus promoting the well-being of residents and visitors.



ADVANTAGES FOR THE CUSTOMER

- Highly effective protection against vibrations and noise
- Protection of the building structure through customized solution
- Safe and reliable support of the load-bearing structure
- Ensured performance over decades



AN INTEGRATED SOLUTION

One of the city's busiest metro lines runs beneath the 42-storey luxury hotel and residential complex in Yokohama.

A perfect opportunity for Getzner to play to its strengths in terms of materials and applications:

- Effective protection against vibration emissions from the metro below
- Full-surface decoupling solution of the high-rise complex on Sylomer®
- Durable and reliable load transfer

Project	Hotel and luxury residence in 42-storey building
Location	Kitanaka-dori Kita, Yokohama (Japan)
Developer	Daiwa Jisyo Co., Ltd. Sumitomo Realty & Development Co., Ltd.
Architectural design office	Kume Sekkei Co., Ltd.
General contractor	Kajima Corporation
Solution	Sylomer®
Implementation	2025