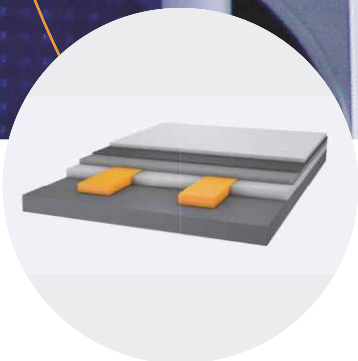


Floating Floors for Rolling Stock for Passenger Trains and Commuter Services



Greater comfort, reduced costs

Noise as a challenge

Unevenness in the running surfaces of the wheels or in the track superstructure, as well as drive motors and compressors, serve as a source of vibration in passenger carriages. The bogie absorbs part of the disruptive frequencies from the vehicle's undercarriage, but the remaining vibrations move the carriage body and ultimately cause the floor system to vibrate. This is perceived as an unpleasant noise level by passengers and personnel in the form of vibrating surfaces and emanating secondary airborne noise.

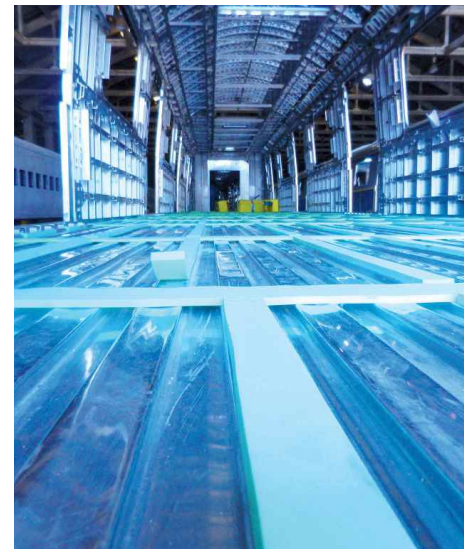
Our solutions

Designed precisely for each individual application, our solutions considerably reduce vibrations as well as the subsequent secondary airborne noise. Fewer vibrations inside the vehicle not only make journeys much more pleasant for

passengers and train staff, but elastic floating floors for rolling stock also protect joints, electronic components, and sanitary facilities. Isolating vibrations and thereby reducing their effects lowers life cycle costs for train operating companies.

During installation, the materials also compensate for both smaller longitudinal and lateral tolerances in the floor pan without affecting the vibration isolation properties in any way.

We develop individual solutions for rolling stock construction depending on general requirements. We provide support during the calculation and material selection and also offer floor system tests if required, which is where our experience of more than 40 years in the rolling stock industry truly comes into play.



Your benefits:



Vibration and noise reduction that remains consistently effective throughout the entire service life



Lower installation costs due to less time being required and reduced staff workload



EN 45545-2 certification for maximum safety



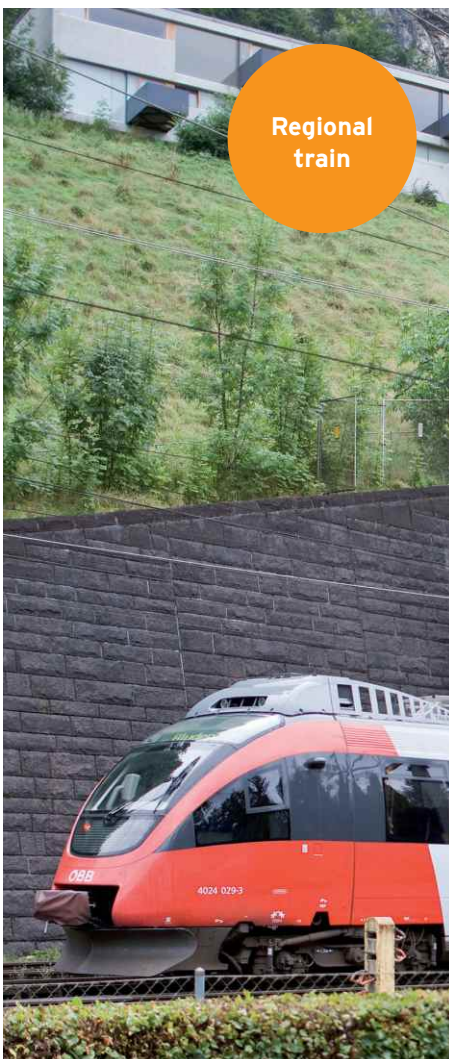
Materials available internationally for secure production processes



Low material weight optimised for lightweight construction



High-speed train



Regional train

Find your solution for every type of train.

You can find the ideal materials for your application using our FreqCalc online calculation tool. Unlike other materials, polyurethane has well-defined material properties, so the behaviour of the finished system can be clearly predicted.

For more info:



www.getzner.com/calculation-tools



Urban transport



Metro

Fire protection

Sylomer® Fire-retardant (FR)

The requirements for fire protection of materials are increasing and are of particularly high importance in rolling stock construction. For this reason, the tried-and-tested Sylomer® types have been equipped with fire-retardant properties while retaining the exceptional damping characteristics of the material.

Sylomer® FR has excellent fire properties and meets a number of international fire protection standards. Among other things, it complies with standard DIN EN 45545-2, and has a hazard level (HL) 3 rating for floor constructions. No halogenated fire protection agents or toxic substances are used when manufacturing Sylomer® FR, and the materials are RoHS-compliant.



Sylomer® FR achieves Hazard Level 3 for floor construction within the DIN standard



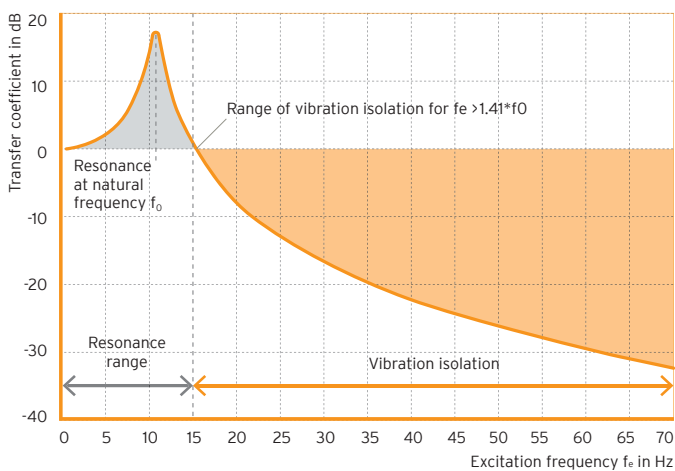
Efficient vibration isolation - thanks to Getzner polyurethane

Material with unique properties

Polyurethane (PU) has the great advantage that it becomes softer under dynamic stress. Compared to other materials (in particular rubber), it achieves a higher isolation effect when used as an elastic floating floor for rolling stock. With Sylomer® and Sylodyn®, the majority of the deflection takes place at the start of the installation

process (the preload), which is in complete contrast to other materials, such as rubber. The materials are designed separately for each load situation, thus ensuring that the deflection remains low and calculable throughout the entire service life of the carriage.

The exceptional creep behaviour and recovery of Getzner materials guarantee low deflections - even in the long term. As the elastic properties of polyurethane are determined in the cellular structure and are not achieved through additives, they remain constant throughout the entire lifetime of a carriage.





Developed
and produced
in the heart
of Europe

Put your trust in innovative solutions from Getzner

We are the world's leading expert in vibration isolation, thanks to our many years of experience in the development, production, and application of our materials. This expertise allows us to design the materials in a wide variety of shapes and gradations. With our Sylomer®, Syldyn®, Sylodamp®, and Sylocraft® materials, we cover a wide range of applications, from resilient to damping. When connected with metal springs and elements, they become Isotop machine bearings that are easy to install.

No softeners are used in the production of polyurethane, meaning it does not become brittle and the chemical composition and material properties remain constant for decades, regardless of the ambient conditions.

We have been making use of these properties for over 50 years. Our customers benefit from our customised services, while our calculation programs facilitate independent layout and design. Our experts will be happy to support you if required.

We look forward to hearing from you.

Getzner Werkstoffe GmbH
Herrenau 5, 6706 Bürs, Austria
T +43 5552 201-0
info.buers@getzner.com



www.getzner.com/contact

We are the leading specialist in vibration protection and ...



...reducing vibrations



...lowering noise levels



...reducing maintenance and service requirements



...extending the service life of bedded components