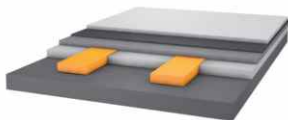


# COMFORT ON TREN MAYA ROUTE TRAINS (MX)

## CASE STUDY

Floating floors  
with Sylomer® FR

EFFICIENT VIBRATION  
REDUCTION FOR MAXIMUM  
TRAVEL COMFORT



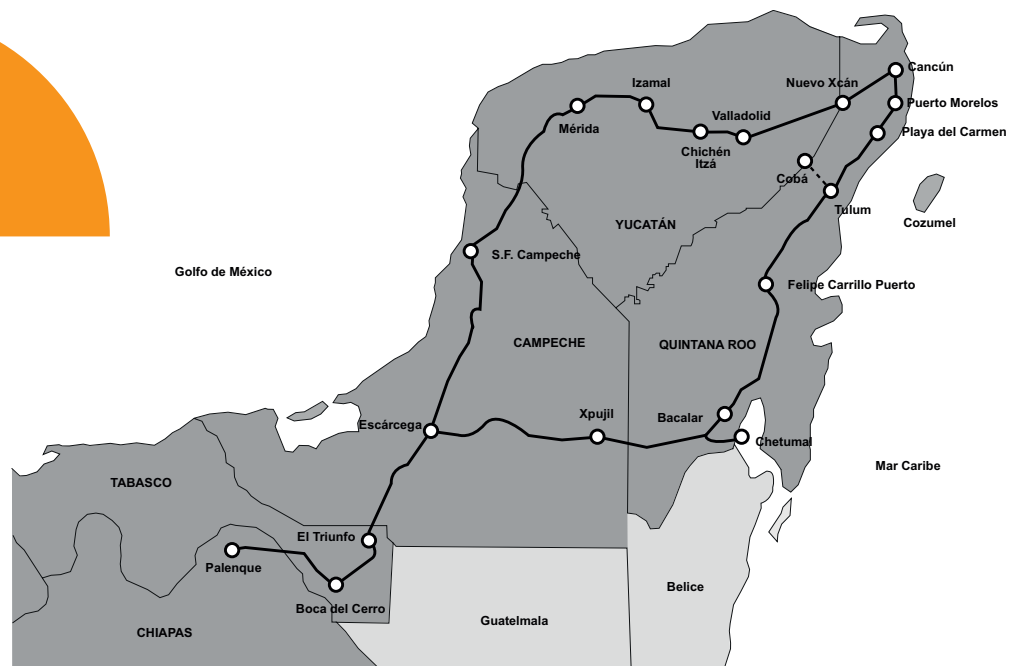
# GENTLE VIBRATION PROTECTION FOR MORE COMFORT

## THE PROJECT

The ›Tren Maya‹ railway line is located in Mexico and covers a length of over 1,500 kilometres. It connects various important tourist sites of Mayan culture as well as cities and beaches. From mid-2024, the trains on this railway line will transport goods and around three million people a year to 20 destinations in an environment-friendly manner.



The ›Tren Maya‹ line runs from the city of Palenque in the state of Chiapas in south-eastern Mexico to the tourist resort of Cancún in Quintana Roo via two different routes. The total length is 1,500 kilometres.



„Route und Haltestellen von ›Tren Maya‹“  
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Alstom Transport is building the 42 'X'Trapolis' passenger trains required for this on site in Hidalgo. Up to 300 passengers per train will be transported at speeds of up to 160 km/h on the route. In addition to passenger wagons, the trains also have sleeping and dining wagons.

In order to offer passengers a high level of travelling comfort, Alstom Transport was looking for a floating wagon floor bearing solution. The aim was to reliably reduce vibrations and noise levels. In addition, the client placed high demands on fire protection and required the trains to be delivered within a stringent time frame.

## THE GETZNER SOLUTION

### Sustainably protected

Getzner has already equipped the corresponding railway line in Mexico with under ballast mats and under sleeper pads to provide lasting protection for local residents, the nature reserve and the railway superstructure against vibrations and noise from the trains in operation. "We are delighted that Alstom has also opted for our vibration mitigation solutions to protect the interior of its railway wagons," says Gert Rhomberg, responsible product manager at Getzner.

### Less is more

Based on the requirements set, the experts at Getzner selected the ideal material to reliably decouple the floor board of the wagons from the structure. The design was optimised to achieve maximum vibration protection while keeping costs, weight and construction height as low as possible. The solution: Sylomer® FR. "From experience, we know that the noise level inside the wagons is reduced by up to 7 dBA and vibrations by more than 20 dB," states Gert Rhomberg. In addition, the material fulfils the high fire protection requirements with Hazard Level (HL) 3 conformity in accordance with DIN EN 45545-2.

### Quickly delivered, quickly installed

Within just a few weeks, Getzner delivered the first batch of elastomer stripes, which offer a great performance. The fitters from Alstom in Mexico were also impressed by the ease of installation: "The installation of the Getzner solution is easy, which saves Alstom a lot of time in assembling. 219 wagons will be produced until 2026. Thus, time saving is important," recalls Gert Rhomberg. The materials of the Getzner solution compensate for tolerances in the unfinished floor in both length and width during installation – without any negative impact on the vibration-insulating properties.

### Wagon costs reduced in the long term

With the customised design of the Sylomer® FR elastomers, Getzner has helped to cut both manufacturing and life cycle costs of the wagons. The reduced vibrations in the interior are not only much more pleasant for travellers and train staff. They also protect joints, electronic components and sanitary facilities. And thanks to the consistent material properties of the Getzner solution over its entire service life, Alstom Transport can be sure that this will remain the case for a long time to come.



© Alstom

**Increased passenger comfort: Until 2026, Getzner delivers the elastic floor bearings for 219 wagons of 42 Alstom trains.**



**The lightweight and space-saving solution provides highest comfort to the passengers and protects electronic components in the long term.**

## THE BENEFITS



**High comfort thanks to reduced noise levels in the wagon**



**Lower life cycle costs due to low wear and tear**



**Fast assembly with tolerance compensation during installation**



**More space due to low installation height**



**Maximum safety thanks to 'EN 45545-2' certification**



# AN INTEGRATED SOLUTION

›Tren Maya‹ is an exciting project in various dimensions: The line will be highly frequented and used for both passenger and freight transport. It runs through a nature conservation area that must be specially protected from vibrations and noise. Also, the connections should be as comfortable as they are reliable, so that road and air traffic will noticeably shift to rail.

A perfect playground for Getzner to utilise all its strengths in materials and applications:

- Comfort for passengers in the trains
- Superstructure protection for the track
- Higher track stability and safety
- Protection of the environment

|                        |   |
|------------------------|---|
| <b>Project</b>         | ›X'Trapolis‹-Züge der ›Tren Maya‹-Strecke   |
| <b>Location</b>        | Mexiko  |
| <b>Client</b>          | Alstom Transport India Ltd.   |
| <b>Solution</b>        | Auslegung und Lieferung von rund 8.000 elastischen Sylomer® FR Streifen (gem. Brandschutznorm DIN EN 45545-2 für Schienenfahrzeuge) |
| <b>Implementation:</b> | 2023 - 2026   |

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