

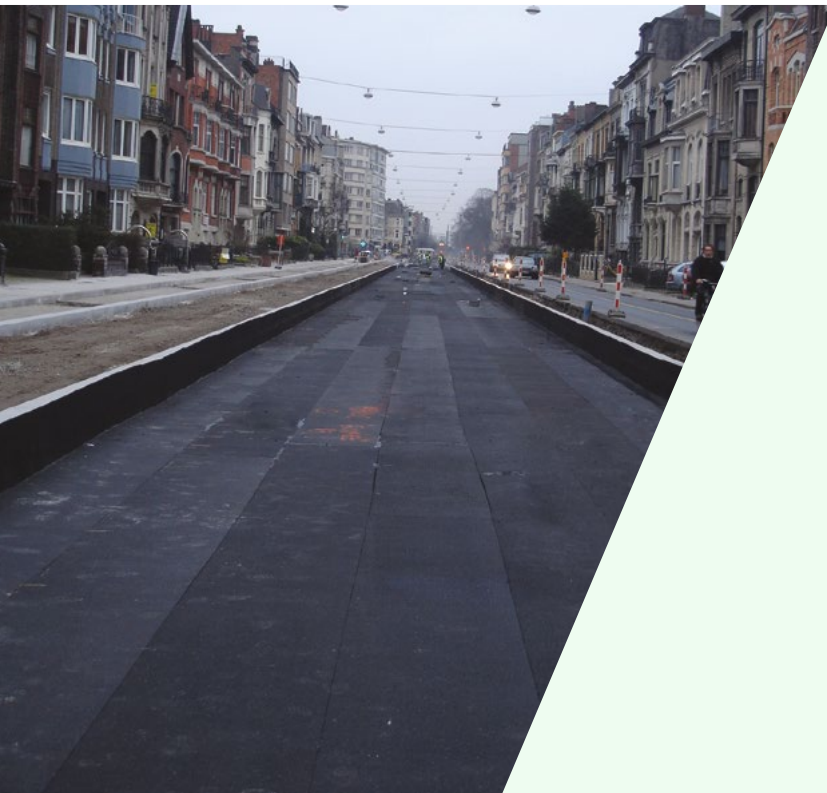


Floating Slab Mat

Sustainable resilient systems

Adding Value

Across light rail transit, metro, mainline and high speed. Designed to give adjustable/tuneable performance in ground borne noise reduction, built with high-quality materials and resistant to prevailing conditions.



The Pandrol Floating Slab Mats (FSM) are high-performing vibration attenuation floating slab system. Easy to install, maintenance free and compatible with all application segments (tramway, metro, suburban, conventional, high speed) and track fastening systems.

The system is based on the mass-spring principle in which the concrete slab, as active part of the unsprung mass, is elastically supported by the continuous FSM mat, acting like a spring. The elastic properties of the FSM mat are defined by the the interaction of the wheel set parameters, track design and selected material, defined thickness, shape factor and number of layers of the solution.

They are made from recycled rubber. Depending on the project, the design of the FSM mat can be adjusted to achieve a vibration attenuation up to 25 dBv with a low resonance frequency, and guaranteeing that vibrations are reduced in the majority of crucial frequency ranges.

→ TECHNICAL FEATURES

Designed for quick and easy installation

The FSM can be supplied in rolls or sheets. Both are easy to install in single, double or more layers, plus an underlayer if needed. The system does not have closing joints between adjacent mats, simplifying installation.

Maintenance free

The FSM is built to last, with tested long-term stable properties and continued performance. It is water permeable and resistant to climate and track conditions. Each mat has excellent mechanical and chemical properties.

Compatibility

It is compatible with all types of rail and track systems, as well as the curvature of the tunnel invert and special track works such as manholes, pipes and electrical boxes.

Vibration isolation

The FSM is available in a wide range of stiffnesses, providing different possible levels or providing tuneable ground borne noise vibration isolation. The vibration isolation performance can be modified to meet requirements. Low resonance frequency is from 14 to 25Hz.

Exceptional performance

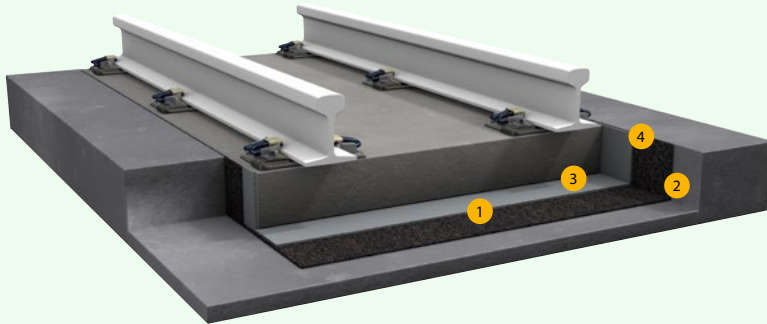
The FSM has been proven to mitigate vibration transmission from rolling stock into neighbouring environment. Reductions of between 15 and 25dB(v) of recorded vibration levels are possible. Insulation performance can be tuned by modifying the stiffness of the mat and/or the properties of the concrete slab.

Eco-friendly and low GWP values

The Pandrol FSM is a continuous mat made of 90% recycled material and 100% recyclable. GWP values are available for all references in the FSM portfolio.

→ ADVANTAGES /

- Rapid, easy installation saves time and labour costs.
- Hardwearing and maintenance free, it is highly efficient and cost effective over the long term.
- The FSM has a low environmental footprint and increases sustainability.
- Compatibility with all types of rail and track systems, including special track works, along with adaptable insulation performance means that the FSM is a highly flexible product with a wide range of applications.



→ COMPONENTS /

1. Horizontal resilient layer - in one or more layers, delivered in rolls or sheets
2. Vertical resilient mats
3. Top protection mat
4. Top Sealing joint (optional)

→ SPECIFICATIONS /

Technical data	
Materials	High-quality recycled rubber bonded with high-performance resin
Setup	Installation in one or more layers depending on requirements. An additional stabilising layer can be added if necessary.
Thickness range	Mat thickness: 10 mm and above, dependent on the number of layers and the type of mat Non-woven protective layer (geotextile) Total thickness of the system: 11.8 mm and above, dependent on the FSM solution chosen
Geometry	Flat or wavy
Density range	550 to 710 kg/m ³
Supply	Rolls or sheets
Taped joints	Not required

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