

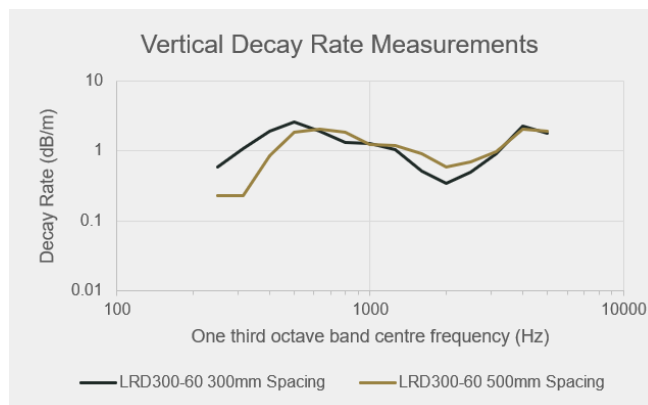


## Leniter Rail Dampers

Construction of light rail systems through built-up urban areas has always required a careful balance of track convenience and noise emission to track-side residences and establishments. Indeed, even areas with little to no nearby residences can still require noise and vibration mitigation solutions to prevent leakage of noise into the carriage and thereby ensure a smooth, pleasant experience for passenger customers at all times.

Trelleborg has produced the Leniter range of solutions specifically to combat both light and heavy rail noise and vibration emissions. As part of this range, Leniter rail dampers are robust, highly effective elastomeric-encased mass dampers which can provide exceptional decibel reduction for track-borne noise emissions.

Leniter rail dampers are provided as polyurethane moulded blocks which house precision selected steel bars specifically designated for the target rail application. The material can be provided as a certified fire-resistant solution for underground and particularly sensitive site installation.



Graph showing vertical decay rate of 300mm Leniter Rail Dampers (LRD) at various spacings

## Benefits:

- **Exceptional noise reduction**

Due to the ability to vary and optimise the shape and size of the damper, along with the method of track attachment, the Leniter Rail Dampers can offer exceptional performance in target frequency range.

- **Superior quality polyurethane**

By encasing the steel bars in a high-quality polyurethane system, this enables excellent transfer of vibration into the steel elements while offering additional noise and vibration mitigation.

- **Innovative clamping systems**

The Leniter Rail Damper range comes with a selection of clamping systems to attach the dampers to the rail, allowing for rapid damper deployment in the field and the maintenance of an excellent interface between the damper and rail.

- **Fire resistant solution**

Leniter Rail Dampers can also be provided with appropriate fire resistance certification for tunnels and other sensitive sites.

- **Cost-effective solution**

By using an easy to install and robust 'fit-and-forget' material solution, costs are minimised due to decreased downtime and maintenance.



300mm Leniter Rail Dampers

### Customization

The Leniter Rail Dampers can be customized to meet your specific project specifications. The length, spacing and attachment method can be tailored to meet stringent requirements, and the dB reduction can be tuned for target frequencies of interest.

Damper Length	Damper Centre Spacing	Noise Contributor	dB(A) Reduction for 100 km/h train	dB(A) Reduction for 160 km/h train
300mm	600	Rail	2.1 dB	2.1 dB
300mm	800	Rail	1.8 dB	1.8 dB
360mm	600	Rail	3.0 dB*	3.3 dB*
360mm	800	Rail	2.7 dB*	3.0 dB*
Other damper lengths available				

Table showing noise reduction (calculated using STARDAMP) of Leniter Rail Dampers (\* denotes predicted data).

Noise reduction adjusted to fit field tests as per [https://uic.org/IMG/pdf/2012\\_dampers\\_grinding\\_lowbarriers.pdf](https://uic.org/IMG/pdf/2012_dampers_grinding_lowbarriers.pdf)

## Contact Us

Trelleborg Polyurethane Products is an industry expert in delivering innovative and reliable solutions that maximize performance for our customers. Our vast range of specialized, customizable materials ensure peace of mind at every stage of your project. With reliable and efficient project management and manufacturing we endeavour to take performance to new levels by achieving your goals safely, on time and within scope.



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