



Photo: Stadler

BONASILENCE[®]_M | product specification

BONASILENCE[®] is a family of dynamic noise absorbing systems developed and continuously enhanced by GHH-BONATRANS.

BONASILENCE[®]_M is a noise absorber specially designed for new Stadler units operating in the Berlin U-Bahn, with the goal of achieving the highest noise reduction on the market. The absorber consists of load-bearing metal components and absorption elements made from fully recycled metallic and non-metallic materials. Both powered and non-powered wheelsets are equipped with multi-segmented absorbers mounted on the wheels, effectively reducing rolling noise by up to **8 dB(A)** and squealing noise in curves by up to **30 dB(A)**.

We specialize in customized noise reduction systems, tailoring solutions to each train type and specific conditions of a given transport system to achieve maximum noise reduction.

Key features

- Exceptional noise reduction – up to 8 dB(A) for rolling noise, up to 30 dB(A) for squealing noise
- Customized solutions for individual combinations of wheel/rolling stock/noise reduction project to achieve maximum noise reduction
- Low weight
- Service life not limited by the service life of the wheels
- 100% recyclable



GHH-BONATRANS
Pioneers of wheelset solutions

Noise emissions

BONASILENCE^{®M} addresses the challenges of noise reduction in railway transport, particularly in densely populated areas and high-speed operations. In Europe and other regions with well-developed railway and urban public networks, noise mitigation is a key priority.

Highly effective solution

Significant noise reduction is achieved by mounting special noise absorbers in the transition area between the wheel web and rim. The system is composed of several layers of carefully selected materials that are designed and tuned to minimize vibrations for maximum noise reduction.

Maintenance-free and resistant to external conditions

BONASILENCE^{®M} offers exceptional durability in all weather conditions. It exhibits high resistance to UV radiation, ozone (O₃), water, snow, ice, and dirt, ensuring consistent performance and reliability. Under standard operating conditions, no maintenance is required throughout the wheel service life. Disassembly is only needed when transferring the absorber to a new wheel during wheelset maintenance.

Global product application

With a proven track record on five continents, **BONASILENCE[®]** damping systems are successfully deployed in metro, trams, high-speed trains and other types of rolling stock. We have supplied over 140,000 wheels with noise absorbers to new and existing rolling stock since 2005.

www.ghh-bonatrans.com

Technical specifications

BONASILENCE^{®M} is adaptable to wheel diameters ranging from 700 to 1250 mm. Optimization for each wheel design is achieved through precise calculations and laboratory measurements. Our absorbers are free of prohibited or toxic substances and are fully recyclable.

Let us protect our planet. Use long-lasting products.

