



Rolling Stock Manufacturing & Maintenance

griwecolor

Up to 40% Weight Reduction for Modern Railway Vehicles

Why griwephon® AN2-900 light Is More Relevant Than Ever

The requirements for modern railway vehicles continue to increase. Manufacturers and operators alike face the challenge of reducing energy consumption and operating costs, achieving sustainability targets, and at the same time further improving passenger comfort.

As a result, every component of a vehicle is coming under closer scrutiny. Every kilogramme saved contributes to improved energy efficiency, supports the reduction of operating costs and helps promote more sustainable mobility.

Alongside materials, vehicle structures and propulsion systems, vibration damping is therefore becoming increasingly important.



Product Container 'griwephon AN2-900 light'

Vibration Damping as a Contribution to Lightweight Design

Vibrations in sheet metal and structural components are a significant source of structure-borne noise and unwanted sound generation in railway vehicles. Effective vibration damping helps increase passenger comfort and sustainably improve a vehicle's acoustic performance.

At the same time, modern solutions must meet growing demands for lightweight construction, energy efficiency and sustainability.

This is exactly where **griwephon® AN2-900 light** comes in.

The water-based anti-drumming coating was specifically developed for applications where high vibration damping performance must be combined with the lowest possible weight.

Up to 40% Less Weight

One of the key benefits of **griwephon® AN2-900 light** is its ability to significantly reduce the weight of vibration damping systems.

Compared to conventional materials, weight reductions of up to **40%** can be achieved.

This weight saving has a direct impact on the overall performance and efficiency of a railway vehicle.

Lower weight means:

- reduced energy consumption during acceleration
- improved energy efficiency
- lower operating costs
- reduced CO₂ emissions throughout the entire service life
- support for modern lightweight design concepts

Particularly in vehicles where energy efficiency and sustainability are key requirements, eliminating unnecessary weight can make a valuable contribution to overall vehicle optimisation.

Proven Technology for Modern Requirements

Weight reduction, energy efficiency and sustainability are among the primary development goals of modern railway vehicles. Manufacturers and operators continuously seek solutions that provide measurable benefits and

help optimise vehicle performance.

griwephon® AN2-900 light has proven itself for many years in demanding railway applications and continues to represent the state of the art in modern vibration damping systems.

Its extensive practical track record, combined with today's requirements for weight reduction, energy efficiency, and sustainability, makes **griwephon® AN2-900 light more relevant than ever.**

Especially where acoustic performance, passenger comfort, and lightweight construction targets must all be achieved at the same time, the system provides a proven and economical solution.

How griwephon® AN2-900 light Works

Vibrations in sheet metal and structural components are among the primary causes of structure-borne noise and unwanted sound generation in railway vehicles.

griwephon® AN2-900 light is applied directly to the relevant components and forms a highly effective damping layer after drying. The coating reduces vibration amplitudes by dissipating vibration energy within the material itself.

As a result, both vibration and structure-borne noise are effectively reduced, contributing to greater passenger comfort and improved acoustic performance.

A key advantage is its low surface weight. Compared to conventional materials, **griwephon® AN2-900 light** can achieve weight reductions of up to **40%** without

compromising effective vibration damping performance.

This provides several advantages for vehicle manufacturers:

- up to 40% weight reduction
- lower energy consumption
- support for modern lightweight design concepts
- improved sustainability performance
- effective reduction of vibration and structure-borne noise
- enhanced passenger comfort

Sustainability Through Water-Based Technology

In addition to weight reduction, the environmental compatibility of materials is becoming increasingly important.

Today, railway vehicle manufacturers consider the entire lifecycle of materials and coating systems. Factors such as resource efficiency, processing conditions, and sustainability play an increasingly important role in material selection.

With its water-based formulation, **griwephon® AN2-900 light** supports this approach and helps combine technical performance with modern sustainability requirements.

The combination of weight reduction, energy efficiency, and water-based technology makes the system an attractive choice for manufacturers seeking solutions that address both current and future challenges.

Future-Proof Solutions for the Railway Industry

Rail transport plays a central role in the mobility of the future. To

achieve ambitious energy efficiency and sustainability targets, every component within a railway vehicle must continuously evolve.

Lightweight construction, resource conservation, and passenger comfort are no longer isolated objectives. They are closely interconnected and increasingly influence vehicle design decisions.

With **griwephon® AN2-900 light**, griwecolor offers a solution that has proven itself over many years and directly addresses these requirements: effective vibration damping, significant weight reduction, and water-based technology for modern railway vehicles.

griwephon® AN2-900 light at a Glance

- Up to **40% weight reduction** compared to conventional materials
- Water-based anti-drumming coating
- Reduction of vibration and structure-borne noise
- Enhanced passenger comfort
- Supports modern lightweight design concepts
- Successfully used in the railway industry for many years
- Proven technology that remains state of the art

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griwephon[®] product series

The Silent Solution for Railway Vehicles.

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