

# griwephon® Sound Deadening



## griwecolor<sup>®</sup> innovative. creative. flexible.

The success story of *griwecolor*<sup>®</sup> begins in the Black Forest - a region known for its inventive spirit and ingenuity.

*griwecolor*<sup>®</sup> was founded in 1996 by Jörg Grieshaber and Franz Wehinger with decades of experience in the paint and coatings industry and the vision of breaking new ground in the field of **low-emission**, water-based paints and coatings.

Although the start with **emulsion paints for construction** was challenging, diligence and ambition quickly led to the expansion of the product range to include **lawn marking paints** and **creative**  products for hobby and artists' needs. In the years that followed, many more innovative water-based products were developed, enabling the company to offer customised solutions for a wide range of demanding challenges in industry, railway vehicles and building construction.

**Plant strengthening agents** have also become firmly established in the product portfolio.

*griwecolor*<sup>®</sup> sets standards in **anti-drum**ming coatings and once again demonstrates its innovative strength, which is also reflected in **customised developments** for customers. The first-class colours and coatings meet the highest quality requirements, are **easy to process** and inherently **ecologically** compatible and sustainable.

The next generation of the family-run company is already continuing its involvement in **complex research projects** at renowned institutions - such as the Fraunhofer Institute - with the aim of advancing the industry and **making the world a little more eco-friendly**.

griwecolor® - always a good choice.

Colours are our purpose, sustainability is our goal.

We are passionate about developing customised solutions for customers and pioneering research projects with environmentally friendly, waterbased paints and coatings.



**Jörg Grieshaber** General Manager Development & Technology



**Sven Wehinger** General Manager Marketing & Sales





# *griwephon®* Sound Deadening The Silent Problem Solver for Railway Vehicles and Structural Engineering.

Sheet metal can generate unwanted noise and vibrations due to oscillation and droning, affecting quality and comfort in vehicles, machinery or other applications.

To effectively tackle this annoying problem, the use of *griwephon® sound deadening mass* offers a highly effective solution.

*griwephon*<sup>®</sup> is a specially developed sound deadening mass that is applied to thin-walled sheet metal to dampen vibrations and reduce unwanted droning. This compound adheres firmly to the surface of the sheet metal and forms a protective layer that absorbs vibrations and converts them into heat.

This not only significantly reduces the volume of noise, but also improves the durability and structural integrity of the sheet metal.

The application can be of great benefit in various areas such as cars, aeroplanes, ships, industrial machinery, escalators, lifts, railway vehicles, building construction, façade elements and household appliances.

Through the targeted reduction of vibrations and the associated noise reduction, *griwephon*<sup>®</sup> makes a significant contribution to improving products and creating a more pleasant environment.

Products in the *griwephon*<sup>®</sup> *series* are solvent-free sound deadening masses based on aqueous synthetic resin dispersion with sound-absorbing and insulating properties.

They are produced in an environmentally friendly way, from low-pollutant raw materials and without organic solvents.

*griwephon*<sup>®</sup> *sound deadening masses* achieve high sound absorption, adhere optimally to a wide variety of substrates, are flame-retardant and thermally insulating, which is proven by numerous test certificates and approvals.

*griwephon® series* - simple and versatile to use.













# griwephon® Railway Vehicles

#### griwephon® AN2-800

For more than 20 years, *griwephon*<sup>®</sup> *AN2-800* has been the leading sound deadening mass with hydrophobic properties in the railway industry. It is used from the ICE II series to the current series.

With first-class fire protection properties and unique toxicological values in accordance with EN 45545, this environmentally friendly product sets standards.

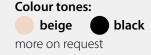
Despite its high solid content, it can be easily applied with airless equipment and other application techniques.

*griwephon*<sup>®</sup> *AN2-800* - the preferred choice of leading companies in the railway industry in Europe and Asia.

- Sound deadening mass based on aqueous KH dispersion
  - / Use as underbody protection
  - flame retardant according to EN 45545
  - / hydrophobic
- 🏹 waterproof
- **/** solvent-free
- very high solids > quick-drying

#### - Areas of application

- » High-speed trains
- » Railcars
- » Locomotives
- » Shipbuilding
- » Container construction
- » Manufacture of commercial vehicles



## griwephon<sup>®</sup> AN2-900 light

*griwephon® AN2-900 light* is a pioneering solution characterised by **up to 40 % lower specific dry density** compared to our proven griwephon® AN2-800.

*griwephon® AN2-900 light* is comparable to griwephon® AN2-800 in all key product specifications such as fire classification, flue gas toxicology, processability and sound deadening performance.

The **significant weight saving** offers considerable advantages in terms of energy savings and, of course, overall weight.

This technology currently represents the **highest level of development** in the field of anti-drumming coatings worldwide.

- Sound deadening mass based on aqueous KH dispersion
- Weight savings of up to 40 % compared to conventional materials
- flame retardant according to EN 45545
  - 🧹 hydrophobic
  - 💪 waterproof
  - 💪 solvent-free
- very high solids > quick-drying

#### - Areas of application

- » High-speed trains
- » Railcars
- » Locomotives
- » Shipbuilding
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# griwephon® Structural Engineering

### griwephon® AN2-701

*griwephon*<sup>®</sup> *AN2-701* is our proven standard product for the sound deadening of thin-walled sheet metal in the construction industry.

With its fire protection classification B1 in accordance with DIN 4102-1, this versatile product offers protection and performance.

Whether facade elements, window sills, lifts, escalators or mechanical engineering - *griwephon® AN2-701* offers a wide range of applications.

If thin-walled metal parts need to be sound deadened, this product is the solution.

- Sound deadening mass based on aqueous KH dispersion
- B1, low flammability according to DIN 4102-1
  - solvent-free
  - very high solids > quick-drying
  - Condensation absorption capacity

#### Areas of application

- » Window sills
- » Attica
- » Facade elements
- » Sheet metal cladding
- » Construction of
  - control cabinets
- » Pipelines
- » Conveyor systems
- » Machinery housings
- » Escalators
- » Lifts



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## griwephon<sup>®</sup> AN2-750/EU

*griwephon® AN2-750/EU* sets standards in fire protection classification without compromising its outstanding sound insulation properties.

The **fire protection classification A2-s1; d0** according to DIN EN 13501-1 is a decisive feature for safety and quality.

*griwephon*<sup>®</sup> *AN2-750/EU* was also subjected to a comprehensive flue gas toxicity test carried out by DB Systemtechnik. This test confirms that the best values are achieved in terms of flue gas density and flue gas toxicity.

*griwephon® AN2-750/EU* can be used in both structural engineering and railway vehicles.

- Sound deadening mass based on aqueous KH dispersion
- A2-s1; d0, non-flammable according to DIN EN 13501-1 up to 5 mm layer thickness
- Solvent-free
- very high solids > quick-drying
- Condensation absorption capacity
- Safety level HL 3 according to R1, R2, R3, R6, R7, R17
  - also suitable for railway vehicles



#### Areas of application

- » Structural engineering
- » Window sills
- » Attica
- » Facade elements
- » Sheet metal cladding
- » Construction of
  - control cabinets
- » Pipelines
- » Conveyor systems
- » Machinery housings
- » Escalators
- » Lifts
- » Railway vehicles

#### **Colour tones:**



## *griwephon®* Unique. Sustainable.

With an impressive **solid content of almost 80%** and continuous further development **on an aqueous basis**, we are setting standards in the environmentally friendly production and processing of sound deadening masses.

This gives our products a unique selling point and guarantees sustainability in the production and processing of sound deadening masses.





	Railway Vehicles		Structural Engineering	
griwephon®	AN2-800	AN2-900	AN2-701	AN2-750/EU
Main application	Railway Vehicles	Railway Vehicles	Structural Engineering	Structural Engineering
Density (dry)	~1,2 g/cm <sup>3</sup>	~0,8 g/cm <sup>3</sup>	~1,3 g/cm <sup>3</sup>	~1,3 g/cm <sup>3</sup>
Standard	EN 45545	EN 45545	DIN 4102-1	DIN EN 13501-1
Classification	DIN 5510 Part 2 Flammability class S4	DIN 5510 Part 2 Flammability class S4	B1 flame retardant	A2-s1; d0 non-flammable
recoatable	$\bigotimes$	$\bigotimes$	$\bigotimes$	$\bigotimes$
Condensation absorption	hydrophobic	hydrophobic	$\bigotimes$	$\bigotimes$
Toxicity test according to DIN EN ISO 5659-2	R1 / HL3	R1 / HL3	_	R1, R2, R3, R6, R7, R17 / HL3
Building authority approval	_	_	$\bigotimes$	$\bigotimes$

## griwecolor® Product Range





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