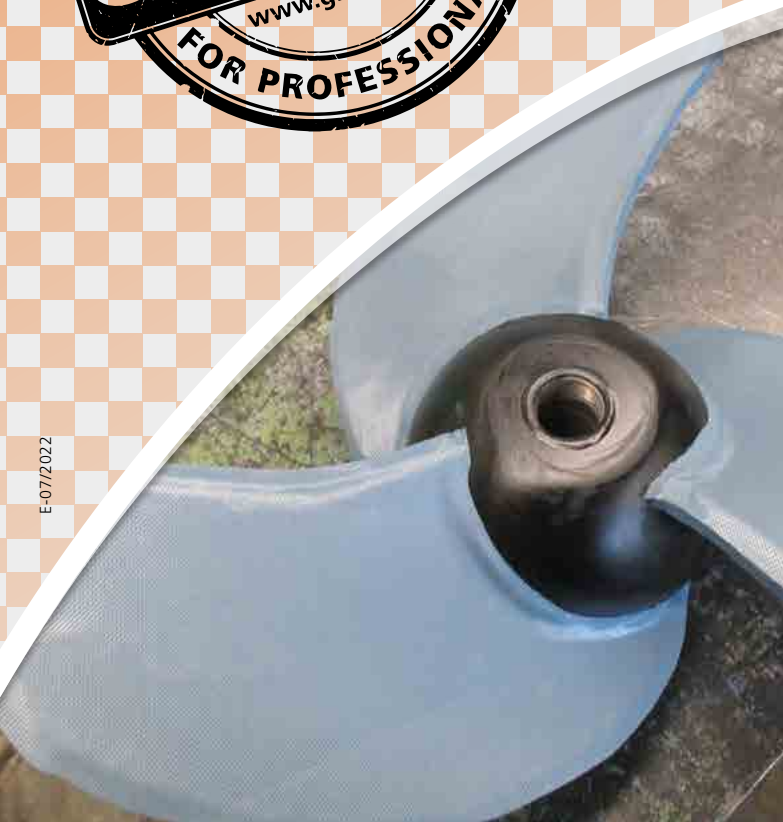




# GrüloCOAT Systeme

E-07/2022



Grünin **G+L** oske  
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RUBBER COATING  
HIGHSPEED COATING  
PROFESSIONAL COATING

# ABRASION AND CORROSION

## The problem! – Abrasion

In numerous industries, such as the raw materials and building materials industry, transportation and waste water disposal, various influences lead to wear and corrosion. Heavy abrasion, hard shocks or aggressive liquids and chemicals cause major damage and high repair costs, considerable downtimes and enormous economic losses.



## The Solution! – Grulo**COAT** Systeme

**GruloCoat Systeme** is a newly developed technology for coating, sealing, grouting and repair of almost all surfaces.

Use our lead in knowledge and experience to protect your surfaces long-term against numerous negative influences as mechanical abrasion, chemical destruction and corrosion.

Successful coatings result from an interaction of many factors. Experienced staff out of our application technology as well as research and development ensure constant alignment of critical parameters. So the best solution for your wear problem can be achieved.

As a specialist company in high-quality wear protection for various loads we offer you high resistant and high-quality coating systems in **rubber**, **ceramics** and **liquid plastic**.



### Application Areas:

- Inner pipes
- Bends and suction pipes
- Funnels and cyclones
- Deflector plates/metal sheets
- Containers and silos
- Inside of tanks
- Conveyer and transport systems
- Hose couplings, Storz and Perrot
- Pulley lagging
- Working and storage areas
- Boats and bouys
- Sewage plants
- Transport areas
- Ponds and Pools
- Transport boxes
- Loudspeakers
- Flat roofs
- Floors
- and much more



**What Polyurea can do?**

*See for yourself:*





Wear protection  
Corrosion protection  
Noise protection

## GrüloCOAT Systeme

Our **GrüloCOAT coating** consists of two components, binder and hardener, which are mixed just before application and then harden through a chemical reaction. This is increasingly used in the coating industry. Applied by low- or high-pressure spraying or grouting, the coating with liquid plastic can be applied in 5 sec. to 45 min. Short-term walkable and loadable, these coatings offer a number of advantages over conventional cold-applied coatings. The adhesion to the respective substrate - whether metal, concrete, stone, wood, rubber, etc. - is always excellent. The very thin layer, which can be applied in several layers, is homogeneous in itself, seamless and jointless. There are therefore no weak points from which material peeling can result.

By adding a wide variety of additives, these materials can be adjusted to meet special requirements. These coatings have been successfully used for many years as multifunctional surface protection in almost all industrial and craft sectors.

Due to the extremely short pot life, geometries can be coated where conventional means fail: whether vertical surfaces, merging radii, complex shapes - the coating follows the surface and covers it in the desired thickness. It is also possible to coat the inside of pipelines and bends or transport hose couplings. Furthermore, this offers a permanent solution for media containers such as tanks, ponds and basins.

**Do you need a specific colour?**

Based on the RAL colours, we can use the desired mixture for your coating project.

### Merkmale



Food safe



Fire retardant



Abrasion resistant



UV resistant



Flexible



Slip resistant



Temperature resistant



Waterproof and root resistant



Crack bridging



Sea water resistant



Cut resistant



Impact resistant



Antistatic



Noise absorbing



Microbe stable



Wear resistant



Corrosion free



Chemical resistant



Approvals for Different areas



Seamless and joint-free Applicable



Stretchable 400 %



Fast reaction times



Applicable in different thicknesses



Available in all RAL colours



Silos and containers

### Silos and containers

Whether silos or containers made of concrete or steel - whether for cement, granulate, food or feed, water or oil - our **GrüloCOAT coating** is the right solution for all. Storage containers must have a stable surface that can also withstand chemical attacks and mechanical stress. The **GrüloCOAT coating** is applied seamlessly and is extremely resistant to chemicals, waterproof, food safe, protects against abrasion and corrosion and is resistant to temperature and ageing.



Pipes

### Internal pipe surfaces

The internal coating of pipes is often necessary to protect the pipe material from harmful influences such as corrosion. In particular, pipes that conduct aggressive media must either be made of a corrosion-resistant material or be provided with a corrosion-protective internal coating. With our pipe coating plant, we can coat pipes with an internal diameter of 150 mm to 800 mm and a length of up to 12 m. Pipe bends, e.g. 90°, and other dimensions are also no problem for us.



Baffle plates

### Baffle plates

Escaping media can cause major damage to transfer points in transport or production lines. Effective protection is provided by baffle plates that dissipate the pressure of the flowing medium and are thus exposed to high abrasion, which considerably shortens the service life of these plates. With a **GrüloCOAT coating**, these plates have a significantly longer service life - save yourself high repair costs and long downtimes and standstill times of the equipment and thus high economic damage.



Cyclones and funnels

### Hydrocyclones, centrifuges and funnels

When abrasive, aggressive bulk materials such as sand, quartz, gravel, sludge, salt, grain or similar are conveyed or moved, the resulting wear problems have a negative impact on the service life of production equipment. A **GrüloCOAT coating** protects surfaces from mechanical abrasion and offers a great weight advantage over other protective linings. The sealed surfaces are a protective barrier against chemical influences and a reliable corrosion protection. They serve to reduce stray currents, have an antistatic and noise-reducing effect, are temperature-resistant and are also suitable for the food industry on request.



Transport rollers

### Transport rollers

We coat rollers for a wide range of applications in industry: whether painting rollers, transport rollers or printing rollers. Our **GrüloCOAT coating** is durable, non-adhesive and antistatic. It is also cut-resistant and noise-reducing and can also be used by the food industry if required.



Special parts

### Special parts, pump impellers and casings

Machine parts, e.g. in vibratory finishing machines and deburring machines, which are exposed to high stresses in production processes, can remain operational for longer with the **GrüloCOAT coating**. Here you can also save downtimes of the machines and economic losses.



Sewage plants and canals

## Rehabilitation in the wastewater sector

From sewers to clarifiers and rake channels, **GrüloCoat systems** offer a way to maintain the long-term value of your facility. Our **GrüloCOAT coating** protects the concrete substrates in basins and channels from aggressive hydrogen sulphide compounds. Damaged areas can be permanently sealed, putting an end to unwanted water loss. With **GrüloCoat systems** you can significantly extend the maintenance-free time of your facilities!



Flat roofs

## Flat roof waterproofing and renovation

**GrüloCoat Systems** is the durable solution for your flat roof. The coating is applied to the roof after careful pre-treatment of the substrate. The material withstands all environmental influences over a long period of time. Even exhaust pipes and windows are seamlessly integrated so that no moisture can penetrate at such connection points. The coating is waterproof, UV-resistant, crack-bridging and insulating. In addition, it is fire-retardant, acid-resistant (e.g. bird droppings) and also provides sound insulation.



Floors

## Production areas, hall floors and car parks

With the seamless and jointless **GrüloCOAT coating** on floors in production areas, parking areas and halls, you make cleaning work easier. There are no joints into which cleaning water or dirt can penetrate. Due to the high material resistance, cleaning with high-pressure cleaners is also possible. In addition, a coating with GrüloCOAT is very robust and therefore heavy equipment or objects do not destroy it. Food-safe and insensitive to chemical influences, it is also excellently suited for laboratory floors. The application of company logos, individually desired colour shades and a slip-resistant coating is also possible.





Swimming and koi ponds

### Swimming and Koi ponds (>200 m<sup>2</sup>)

Anyone who has a swimming or fish pond knows the problems with pond liners: tedious fitting and bonding, limited lifetime and not very visually appealing. With our **GrüloCOAT coating**, the shape and size of ponds can be customised. The resistant coating withstands root growth and UV radiation, is harmless to humans, animals and plants. A seamless seal for your water landscape - available in all RAL colours and optionally also slip-resistant. The latter is an unbeatable advantage in terms of safety for a swimming pond! Durably beautiful appearance, no leaks and is therefore the optimal solution for your pond or pool!



Transport surfaces

### Transport surfaces and troughs

A **GrüloCOAT coating** protects your loading area from wear and tear and thus ensures a permanently beautiful appearance. Less damage also means reliable prevention of corrosion damage to the vehicle. The seamlessly applied sealant makes the surfaces easier to clean. An anti-slip coating and individual colouring is also possible.



Loudspeaker cabinet

### Loudspeaker cabinet

The sensitive technology in loudspeakers is optimally protected by the impact-, scratch- and weather-resistant **GrüloCOAT coating**. This means that even wild festivals or parties can no longer harm the outside of the speakers. The coating can be applied in any RAL colours.





**Corporate Identity**

### Corporate Identity

3D logos, letters and numbers in 3D look obtain resistance against all environmental influences with a **GrüloCOAT coating**. Regardless of the substrate, whether for outdoor advertising or trade fairs and exhibitions, this advertising decoration is light, yet very robust and can be used for a long time.



**Boats and buoys**

### Boats and buoys

**GrüloCOAT coatings** are the ideal solution for protecting boats, ship decks and maritime traffic and warning signs. Applied seamlessly, it protects against corrosion, aggressive salt water, weather damage, UV radiation or algae adhesion. In addition, it can be applied in all RAL colours and, if desired, in a non-slip manner.



**Transport boxes**

### Transport boxes

Transport boxes should be as light and stable as possible and protect the contents from damage and temperature fluctuations during transport. A **GrüloCOAT coating** makes it easier to keep boxes hygienically clean and thus comply with food and hygiene regulations.

The question is not where to use GrüloCOAT systems, but where not to! GrüloCOAT coatings are so versatile that there are hardly any limits. Just ask our team for the suitable system.



**Franchise & Trainings**

### Franchise and training

Take advantage of our knowledge and experience and become a coating professional too! We will help you with know-how so that you too can be a professional partner for hot spray coatings.



## Coating processes

### Substrate pre-treatment depending on the area of application

- Cleaning, sanding and/or sandblasting of the surface
- Repair of cracks, damaged areas and unevenness, possibly welding work
- Joint treatment & joint repair

### Prerequisites for a successful coating

- Surface must be dry and free of dust and oil.
- The finish depends on temperature and weather conditions.

### Primer

- Primer is applied as an adhesion primer and vapour barrier.

### Coating

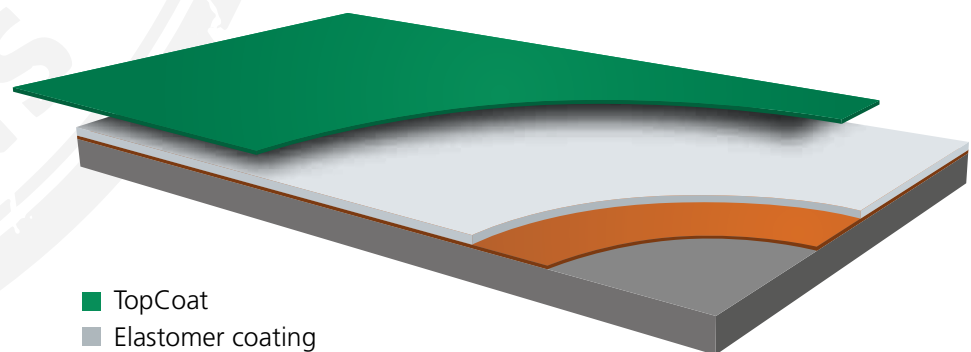
- The coating is applied by hot spraying with a 2-component dosing system that always monitors the mixing ratio. The coating follows the specified shape, sealing all connections seamlessly.

### TopCoat (optional)

- A TopCoat is applied in the desired colour, optionally also slip-resistant or food-safe.

### The team

- Our employees are highly trained and have years of experience with materials, machines and the equipment of construction sites. They convince with their expertise and friendly demeanour and always find a suitable solution even in case of complications on site.



- TopCoat
- Elastomer coating
- Primer
- Substrate (steel, concrete, plastic . . .)



Cleaning



Sandblasting

Repairing  
damaged areas

Priming



Coating



Finished

## Competence in Rubber Coating

### Soft Rubber Coating - Wear Protection

Rubber as protection against wear is an optimal cover for machines and plants. It is most suitable for coating of transport- and storage containers, chutes, gutters or funnels due to high tensile strength and elasticity.

We process natural rubber (NR) of 2, 5, 7 and 10 mm thickness in soft rubber coating. On demand we offer to choose between highly wear resistant 40° Shore A in blue or highly abrasion resistant 60° Shore A in black.

#### Advantages of Rubber Coating

- wear protection
- noise protection
- vibration protection
- higher lifetime
- lower caking

#### Application Areas

- road sweeper parts
- suction dredge wear parts
- engine pumps
- crushing plants
- lining for sandblast cabins
- gutters and chutes
- spiral pump shafts
- truck mixer gutters/-chutes
- gravel excavator pumps
- deflection plates and deflector metal sheets
- pipe coating for sand- and gravel industry
- ventilation cases

### Hard Rubber Coating - Protection against corrosion (acc. to EN 14879-1)

The material characteristics of synthetic rubber – high ageing and weather resistance as well as an outstanding chemical resistance – offer optimal protection against aggressive media inside industrial plants.

Mostly a hard rubber coating with the materials Butyl rubber or Hypalon® is used, furthermore IR, BR, SBR, IIR, CR and NBR .

#### Application Areas

- flue gas desulfurisation plants
- pipe coating
- basins/tanks for chemicals
- basins for electroplating and much more





## Driving drums - Hot rubber coating versus cold bonding!

In order to enable a longer lifetime of drums we developed a design of rubber coated drums along with our customers. The old coating is removed, tested on concentricity deviation and if needed slightly twisted. Following this mantle and shield as well as flanges are sandblasted.

### The significant advantage of our procedure:

Instead of cold bonding we use hot vulcanisation in an autoclave to join friction lining with metal. Thereby the complete drum is protected. The under the friction line used layer of raw rubber as well as the applied layer of wear resistant rubber on the shields (thickness 5-7 mm) is vulcanised in this process to a seamless rubber coating. Therefore no water, salt or other material can get through the necessarily existing joints in the friction lining. The corpus is protected in spite of the rotating drum during flexing work. The rubber coating on the shields is done over the flange as far as the shaft in order to obtain a maximum protection. Following this procedure the lifetime of ceramic friction linings can be fully exploited. Additionally the metal corpus is protected against corrosion.



## Everything in-house – reliable and quick!





# OUR PRODUCT RANGE AT A GLANCE

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## HOSE TECHNOLOGY

technical advice, pressure testing,  
hose line assembly



## HOSE CONNECTION SYSTEMS

couplings, fittings



## FASTENING TECHNOLOGY

hose clamps



## WEAR PROTECTION AND CONVEYOR BELT ENGINEERING



## RUBBER- AND SEALING TECHNOLOGY



## PPE - PERSONAL PROTECTIVE EQUIPMENT



## MRO GOODS



## CHEMICAL PRODUCTS

adhesive and sealing material

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