

BMG OPTIMUM Silber

Solvent-based silver tarnish protection

Product information

1. Nanotechnology-based silver tarnish protection
2. Very economical, simple dipping process
3. biodegradable
4. Fast drying
5. No odour nuisance

Bath description:

The passivation layer is applied in the immersion process, creating a transparent, organic protective film that only slightly changes the appearance and good electrical properties of silver, e.g. contact resistance and conductivity.

The good solderability and bondability of silver is not impaired by the passivation layer.

In general, passivation is used to protect silver surfaces from the influence of sulfur compounds during storage. It can be used to

also protect copper, palladium and thin layers of gold from tarnishing. Due to its chemical composition, the protective film has lubricating properties, which is a great advantage for certain electrical connecting elements. The mating and pulling forces are significantly reduced by **BMG Optimum Silver**.

This applies not only to silver surfaces, but also to gold-plated sliding and plug-in contacts.

It is also noteworthy that the tarnish protection layer consists of non-hazardous substances, and that their protective effect allows for a short-term

Heat stress up to 300°C allowed.

Equipment:

Bath containers:

Plastic, preferably polypropylene, PVC or stainless steel.

Suction:

Effective suction is required.

The extraction system must be dimensioned, designed and operated in such a way that there are no health hazards for employees from gases, vapours and spray mist. In particular, it must be ensured that the permissible limit values (e.g. MAK, TRK, ARW, EC values) are not exceeded. In addition, care must be taken to ensure that the extracted, pollutant-containing air at the exit point does not lead to nuisances, hazards and environmental hazards.

Lieferform:

Badansatz: **BMG Optimum Silber**
Gebrauchsfertige Lösung
Lagerstabilität: ca. 1 Jahr

Bathroom approach:

The BMG Optimum Silver **Tarnish Protection** is supplied as a ready-to-use solution and can be used immediately.

Working conditions:

	Debit	Range
BMG Optimum Silber	Ready-to-use solution	
Temperature:	Ambient temperature	20 - 25°C
Treatment time:	30 - 60 seconds	

Special procedural instructions:

Pretreatment:

The goods must be degreased or cleaned before the tarnishing agent. Before immersing it in **BMG Optimum Silver**, it must be completely dry.

After-treatment: The goods are dried with warm air (60 – 90°C) without rinsing.

Bathroom supplement:

The BMG Optimum Silver **Tarnish Protection** is an extraordinarily cost-effective process. One litre is sufficient for the passivation of a surface of approx. 3000 dm². However, consumption is also strongly dependent on the mode of operation and the geometry of the passivated goods. The pH value does not require monitoring.

Examination of the protective effect

By immersing it in a freshly prepared and filtered potassium sulfide solution. If the passivated goods show dark discoloration after a dipping time of 5 minutes, they must be supplemented to the target value.

Safety measures and disposal:

The present tarnish protection contains hazardous chemicals and is therefore classified as harmful to health according to the GefStoffV.

When dealing with **BMG Optimum Silver**, we refer to the BGR 120 (BG Rule "Guidelines for Laboratories") or to Leaflet 0001 (Occupational Health and Safety Measures when Handling Electrolytes), as well as to the Safety Data Sheet.

According to the Water Resources Act, the pools in question are water-polluting substances that must not enter a public sewer network or bodies of water untreated. We recommend that the solutions containing precious metals be processed by the supplier or that the process and rinsing solutions be decontaminated in accordance with local wastewater detoxification regulations.

Other information:

Our information about our products and devices, as well as about our systems and processes, is based on extensive research work and application technology experience. We convey these results, with which we do not assume any liability beyond the individual contract, in speech and writing to the best of our knowledge, but reserve the right to make technical changes in the course of product development. In addition, our application technology service is available on request for further advice as well as for participation in the solution of manufacturing and application problems.

However, this does not release the user from checking our information and recommendations on their own responsibility before using them for their own use. This also applies – especially to deliveries abroad – with regard to the protection of third-party property rights, as well as to applications and procedures that are not expressly specified by us in writing. In the event of damage, our liability is limited to replacement services of the same scope as those provided for in our General Terms and Conditions of Sale and Delivery in the event of quality defects.