

## Molymagus bonded coating S-58HN

Art.-No. 30813

## Molymagus reaction acid S-58-A

Art.-No. 30120

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### Application

Molymagus Reaction Acid S-58-A and Molymagus Bonded Coatings S-58-HN can be used to treat all non-acid resistant ferrous metals as well as sintered and cast hard metals (Stellite and Widio) and various heat-treatable steels.

The Molymagus Reaction Acid S-58-A or Molymagus Bonded Coatings S-58-HN process provides a thin, run-in top coat comparable to a phosphate coating. The dry lubricant molybdenum disulfide and special reaction inhibitors are incorporated in this layer.

Molymagus Reaction Acid S-58-A and Molymagus Bonded Coatings S-58-HN treated surfaces show better running-in behavior and reduce friction.

### 1. Diving treatments

#### 1.1 Preparation of the pieces to be treated

The surfaces to be treated must be free of scale, grease and oil. Thorough cleaning of the surfaces and subsequent degreasing with solvents or grease-dissolving cleaning agents are absolutely necessary.

#### 1.2. Bathroom furnishings

The liquid for the treatment baths is supplied by STRUB & Co. AG in ready-to-use concentrations. Containers made of plastic, ceramic or enameled sheet metal are suitable as bath containers. Containers made of sheet steel are unsuitable. Stainless steel containers are also not suitable. If necessary, containers made of aluminum (and its alloys) or rubber can be used for a short time. However, in these cases, after the process has been completed, the bath liquid must be filled back into plastic containers.

To avoid unnecessary evaporation and to prevent contamination by dust, etc., the baths must be covered when not in use.

#### 1.3. Bath approach

Only the component Molymagus Reaction Acid S-58-A is used as bath liquid for the Molymagus Reaction Acid S-58-A treatments. The acidic solution Molymagus Reaction Acid S-58-A is slightly irritating to the skin. Rubber gloves should be used when working with Molymagus Reaction Acid S-58-A. At least the hands should be protected with a suitable skin protection cream. Splashes on unprotected skin should be washed off immediately with cold water.

The concentration of Molymagus Reaction Acid S-58-A is adjusted for a proper treatment of 60 to 80 m<sup>2</sup> of clean metal surface. The treatment bath is used up when the bath liquid starts to thicken.

In the bath, a little sludge forms at the bottom of the container. It is recommended to remove this sludge from time to time by emptying the container and rinsing the sludge with cold water. Molymagus Reaction Acid S-58-A baths do not require heating.

The information in this technical data sheet is based on general knowledge and application possibilities. STRUB + Co. AG is not liable for damage resulting from improper use of the products. The industry-standard measurement and production tolerances apply to the specified characteristic. Generally, no legal binding can be derived from these data. Our products are subject to continuous further development. Therefore, STRUB + Co. AG reserves the right to change all technical data in this data sheet at any time and without prior notice.

#### 1.4 Bath treatment

The parts prepared according to point 1.1 are suspended in the cold Molymagus Reaction Acid S-58-A treatment bath and left in it for a specified exposure time. These exposure times are:

for low-alloy structural steels 15 minutes  
for higher alloyed structural steels (ECN, VCN, etc.) 30 minutes  
for tool steels 45 minutes  
for high-speed steels and hard metals 60 - 90 minutes

For structural steels and tool steels, the metal surface shows a mousy gray color after the bath treatment. In the case of high-speed steels and carbides, there is usually only a slight dulling of the surface; more rarely a pronounced gray coloration.

Immediately after the bath treatment, the parts must be rinsed in clear water. For the Magus treatment, it does not matter whether hot or cold water is used for rinsing. The use of hot water has the advantage that the parts dry more quickly.

Rapid drying of the rinsed parts is very important, so that flash rusting is prevented. One can blow off with oil-free compressed air or dry the treated parts in a drying cabinet.

Proper after-treatment is as important as the bath treatment itself. Only Molymagus Bonded Coating S-58-HN is used for post-treatment, unless otherwise recommended by us for the intended application. Molymagus Bonded Paint S-58-HN consists of finest molybdenum disulfide with traces of an oil-resistant binder, dispersed in solvent. Molymagus Bonded Coatings S-58-HN is also supplied in ready-to-use concentration. Before each use, Molymagus Bonded Varnish S-58-HN should be stirred well until no solid particles are detected on the bottom. Also in the post-treatment bath, the fluid must be homogenized from time to time.

Well stirred and brushed on in a thin layer, Molymagus Bonded Paint S-58-HN provides a matt, gray-black molybdenum disulfide film of excellent adhesion. The parts previously treated in the Molymagus Reaction Acid S-58-A bath and completely dry are now either dipped again in the Molymagus Bonded Paint S-58-HN bath, or the bearing and sliding points are brushed with Molymagus Bonded Paint S-58-HN. For cutting tools, the cutting edges are brushed with Molymagus Bonded Coating S-58-HN. The coating Molymagus Bonded Lacquer S-58-HN dries immediately. Molymagus Bonded Lacquer S-58-HN should always be kept tightly closed to prevent evaporation of the solvent. If for any reason too much solvent has evaporated, the loss can be made up by careful addition of pure methyl ethyl ketone (MEK).

Wherever possible for operational reasons, the MoS<sub>2</sub> films formed should be fixed and solidified. Fixation or consolidation is achieved by brushing the treated surface with a not too hard brush (not a wire brush), which is continuously dusted with molybdenum disulphide. This gives the previously dull coating a shine and further improves the sliding properties. For series parts, this final procedure is usually carried out with a rotating fabric disc.

This completes the Molymagus Bonded Coating S-58-HN treatment after the dipping process. Greasing or oiling is not necessary after the complete treatment of the parts, as this film forms a primary corrosion protection.

#### Storage

Molymagus Bonded Coating S-58-HN and Molymagus Reaction Acid S-58-A 12 to 36 months at room temperature, stirring both products well before use.

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**Precautions**

When handling Molymagus Reaction Acid S-58-A and Molymagus Bonded Varnish S-58-HN, the respective state regulations of the individual countries must be observed.

**Transport**

	<b>Bonded coating S58-HN</b>	<b>Reaction acid S-58-A</b>
UN-Code	1993	1805
ADR/SDR	Class 3, VG II	Class 3, VG III

**Disposal**

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