functional painting

anti-friction flock coatings, cathodic dip paintings and phosphatings

Characteristics of the Variants

water-based, solvent-free coating system (basic system) various compositions which contain lubricating additions with corrosion protecting additions black-dyed surface with anti-friction properties formation of a shiny lubricant film, if subject to pressure high temperature coating for non-stick applications (shielding gas nozzles for welding technology), applicable up to 600 °C multi-functional combination coatings: a first layer + a functional paint coat without silane compounds

Applications (rack and barrel plated parts)

• all parts that are subjected to an abrasive load
• movable vehicle interior components, e.g. hinge pins, bearing bolts, seat adjustment components, guide plates
• rotationally symmetric components, anchors
• leaf springs
• bolts, screws, nuts
• vehicle door locks
• guide mechanisms, rollers
• slide bearings, bushes
• insert/outsert injection moulding technology
• balls
• bearings fitted to drive systems, turbines and rotors
• coil compression springs for damping systems
• seat bolting devices
• spindles, shafts
• valves, stopcocks
• roller bearings
• toothed wheels
• gear racks

Suitable materials

Depending on the process variant all metals, light metals as well as plastics destined for industrial use can be treated. Among others, the following substrates have been successfully treated for special applications:

paper, non-woven fabrics, plastic foils, metal foils, ceramics.

General layer properties

anti-friction properties, pressure resistant, no squeaking and grinding noises, free of heavy metals according to the EU End-of-Life Vehicle Directive
Aalberts surface treatment offers a broad range of functional painting that includes cathodic dip paintings and anti-friction flock coatings. Pre-treatments and additional finishes, such as degreasing or phosphating without a downstream painting process are also offered. Assembling of components, customized final inspections or the realisation of the packaging instructions of our customers complete the range of services.

### anti-friction flock coating

**GLISS-COAT® FLOCK**

**Description**
GLISS-COAT® FLOCK is a coating to improve the absorption of impacts and noise. A low-friction GLISS-COAT® adhesive is combined with polymer-fibers. GLISS-COAT® FLOCK can be applied to phosphated, anodized and blasted metal surfaces as well as to plastic.

**Applications**
all kinds of springs, profiles, anti-friction mechanisms, guides, guide rails, blocking pins; Partial coatings are also possible, e.g. only the outside area or only the inside area of a spring.

**Layer properties**
flexible tolerance compensation, no squeaking and grinding noises, improved impact absorption, anti-friction properties, increased corrosion resistance, elevated wear resistance

### cathodic dip painting

**Description**
Cathodic dip painting is a process during which the workpiece to be coated is negatively charged and then immersed into a paint bath with positively charged paint particles. These paint particles are attracted to the workpiece on which they deposit and form a uniform film across the whole surface. Every gap and corner is coated until the film reaches the specified layer thickness. At this layer thickness the film acts as an insulation of the part so that the electrical attraction is suppressed and the coating process is finished. Subsequent to the application of the paint layer a heat treatment (baking) is carried out at 180 to 220 °C.

**Applications**
- the automotive sector (corrosion resistance)
- general mechanical engineering (corrosion protection, also for stamped parts)
- well suited for complex shaped parts

**Layer properties**
- good corrosion resistance
- high impact resistance

### zinc-phosphating

Aalberts surface treatment offers rack and barrel phosphating with and without oiling according to DIN EN 12476:2001. To confirm corrosion resistance performance it is necessary to test sample coatings.

**Applications**
- Lot of applications for the automotive sector, mechanical engineering as well as for many other branches.

**Layer properties**
- primer for subsequent paintwork
- moderate corrosion resistance

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Coil springs with GLISS-COAT® FLOCK.
Guide rail with GLISS-COAT® FLOCK.