

MagnaCoat®

thick-film systems with high chemical resistance



surface
technologies

MagnaCoat®

Components in contact with products in the chemical industry such as filter funnels, reactor vessels and pipelines can be coated with MagnaCoat®, a thick-film system based on fluorinated polymers, as an alternative to the costly use of alloys such as Hastelloy or enamelling. Other machine parts or baths, e.g. in the electroplating or semiconductor industry, are also suitable for MagnaCoat® coating. MagnaCoat® is a high-quality fluorinated thermoplastic with good thermal, chemical and dielectric properties. MagnaCoat® can be applied electrostatically and is thermally melted. The layer thickness is 0.3 to 0.5 mm, depending on the heat capacity of the parts to be coated. The mechanical strength

of the coating permits subsequent processing, e.g. by grinding. In this way, exact dimensional tolerances can also be achieved.

With MagnaCoat® coatings, Aalberts surface technologies offers thick-film polymer coatings and fluoropolymer coatings with an almost pore-free surface. This makes the surfaces resistant to diffusion. The combination of good non-stick properties, abrasion resistance and excellent corrosion protection makes MagnaCoat® thick-film systems ideal solutions for applications under chemically aggressive conditions.



Corrosion protection – basket with ball (MagnaCoat® layer).

Insulation coating Rilsan for medical instruments.

Motor housings with MagnaCoat® coating.

MagnaCoat®	process details
Applications	MagnaCoat® is suitable for heavy corrosion protection. Typical parts in the chemical industry are storage vessels, reaction vessels, fittings, agitators or measuring probes. Can also be used for dryer or calender rolls.
Coatable base materials	various metals, stainless steel, grey cast iron
Pre-treatment	degassing, sandblasting, degreasing, primer if necessary, powder coating or spraying
Properties	excellent chemical resistance, diffusion resistant, high temperature and wear resistance, non-stick properties, easy cleaning, high layer buildup
Performance characteristics	layer thickness: 100 µm - 1.5 mm temperature resistance: -40 °C bis 290 °C roughness R_a: up to 1.5 µm diffusion resistance: very good bending strength: very good, up to 4 mm radius without spalling chemical resistance: very good
Service	We find the optimal coating process for your components based on an individual consultation. From the first sampling to the introduction into series production, we define the relevant production steps together with you. On request, we can also supplement our technical services with a logistics concept tailored to your needs, including pick-up and delivery services.