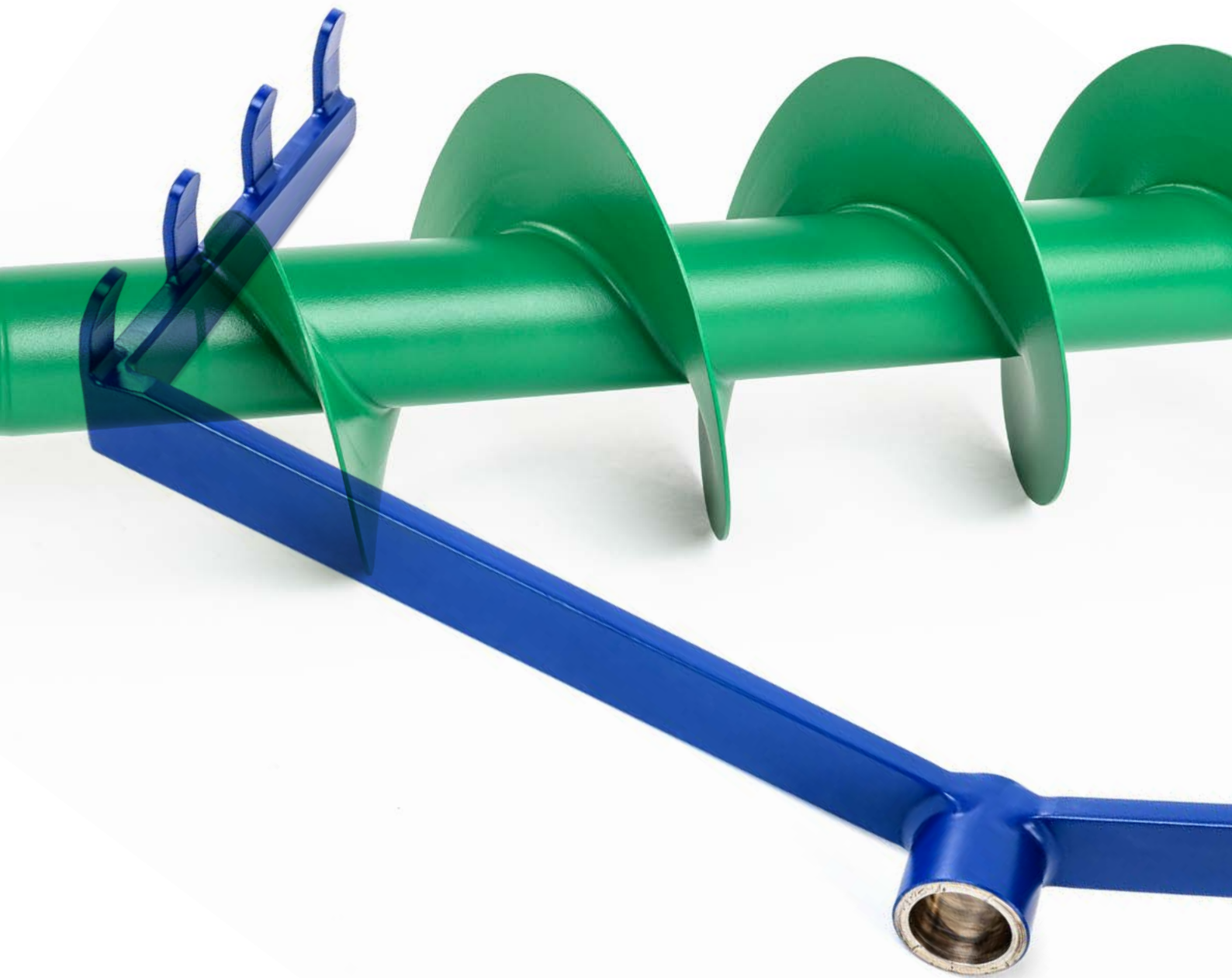


# ***buser***

## **Plastic coatings by Buser**

for highest demands and quality standards



## Plastic coatings – surfaces with superior properties

**With excellent nonstick properties, chemical resistance combined with high temperature resistance and excellent electrical properties – plastic coatings by Buser Oberflächentechnik AG meet the most difficult requirements.**

A plastic coating is a fluoropolymer powder coating that gives surfaces high-quality properties. While the mechanical and automotive engineering industries place value on a low friction coefficient, for example, the electrical industry is looking for excellent dielectric properties. This range of materials also finds applications in the chemical industry. Given almost universal chemical resistance, high temperature resistance, exceptional nonstick properties and physiological harmlessness, powder coating is almost always the first choice when it comes to coating systems.

### **Environmentally friendly, sustainable plastic coating**

Components with worn or defective coatings can be economically and ecologically renewed. This makes coating with plastic one of the most environmentally friendly processes – because you do not have to replace the entire component. We obtain the energy for our processes primarily from our own solar power system. This system is installed on our production building.

### **Conformity of your component coatings**

To ensure the conformity of your component coatings, the final component coatings must be considered already in the design phase. Depending on the system, the plastic coating will have a thickness of between 5 µm and 3000 µm.

### **Plastics for special applications**

For finishing surfaces with plastics, we differentiate fundamentally between two processes: one is wet coating and the other is powder coating. For each workpiece, the first thing to do is to define exactly the required functionality and properties of the surface. The carrier material does not have to be made of the same material as the functional surface to be applied. Once these two things have been determined, the optimal coating material is precisely developed. Often, standard procedures and materials will be used. In other cases, we will develop individually tailored coating solutions to address special customer needs. Determining which process is best suited for each task requires know-how and many years of experience.

The expectations placed on surface coatings are many and varied. Here is a sample of the properties most requested today:

- Nonstick / easy to clean
- Corrosion and wear protection
- Chemical resistance
- Sliding properties / emergency running properties / dry lubrication properties
- Antistatic, electrical conductivity or insulation
- Thermal conductivity or insulation
- Hydrophilic / hydrophobic
- Electromagnetic shielding
- Food compatibility
- Temperature resistance
- Anti-slip
- Sound insulation



Coat	Target application													
	Corrosion protection	Nonstick properties	Sliding properties	Wear resistance	Diffusion resistance	Chemical resistance	Solvent resistance	UV and weather resistance	Electrical insulation	Properties/applications	Max. application temperature	Sintering temperature	Coat thickness µm	Food safe
<b>Beschichtung</b>														
<b>PTFE</b> Polytetrafluoroethylene	☺	☺☺☺☺	☺☺☺☺	☺☺	☺	☺☺☺	☺☺☺	☺		Excellent nonstick and low-friction properties in the temperature range up to 260°C. Chutes, sealing plates, tools, casting plates, funnels, heating elements, welding mirrors, bearings, medical equipment, etc.	260 °C	80–420 °C	15–50	Yes
<b>PFA (wet)</b> Perfluoroalkoxy	☺☺	☺☺☺	☺☺	☺☺	☺☺☺	☺☺☺☺	☺☺☺☺	☺☺	☺☺	Excellent chemical resistance in the temperature range up to 260°C. Casting moulds, baking moulds, blades, stirrers, welding mirrors, etc.	260 °C	350–400 °C	30–200	Yes
<b>FEP</b> Fluorinated ethylene propylene	☺	☺☺☺☺	☺☺	☺	☺☺	☺☺	☺☺☺	☺☺	☺	Excellent nonstick coating in the temperature range up to 205°C. Kneading arms, casting moulds, dosing units, extrusion molds, screw conveyors, weighing equipment, etc.	205 °C	350–400 °C	20–60	Yes
<b>Silicone</b>	☺	☺☺☺☺		☺	☺	☺	☺	☺	☺	Excellent nonstick effect. Sugar, adhesives, sealing of thermally sprayed coatings, dental technology, etc.	250 °C	200–350 °C	20–40	Yes
<b>Sol-gel</b>	☺	☺☺☺☺	☺☺	☺☺☺	☺☺☺	☺☺☺	☺☺☺☺	☺☺☺	☺☺	Self-cleaning and nonstick properties with very high temperature resistance. Housings, lamps, pushbuttons, etc.	1000 °C	20–200 °C	5–40	
<b>ECTFE (Halar)</b> Ethylene chlorotrifluoroethylene	☺☺☺	☺☺	☺☺	☺☺☺	☺☺☺☺	☺☺☺☺	☺☺☺☺	☺☺	☺☺☺	Heavy duty corrosion protection and good insulation properties (also available in conductive form). Chemical plants, appliances, drying cabinets, glove boxes, filter housings, mixers, containers, etc.	150 °C	280–320 °C	250–1200	Yes
<b>ETFE</b> Ethylene tetrafluoroethylene	☺☺	☺☺	☺☺	☺☺	☺☺☺	☺☺☺☺	☺☺☺☺	☺☺	☺☺☺	Heavy duty corrosion protection and good insulation properties (also available in conductive form). Chemical plants, devices, drying cabinets, etc.	150 °C	280–320 °C	250–1000	Yes
<b>PFA (powder)</b> Perfluoroalkoxy	☺☺☺	☺☺	☺☺	☺☺☺	☺☺☺	☺☺☺☺	☺☺☺☺	☺☺	☺☺☺	Heavy duty corrosion and wear protection at high temperatures, good insulation properties (also available in conductive form). Chemical plants, devices, fume extractors, etc.	260 °C	360–400 °C	250–600	Yes
<b>PVDF</b> Polyvinylidene fluoride	☺☺☺	☺☺	☺☺	☺☺☺	☺☺☺	☺☺☺	☺☺	☺☺☺☺	☺☺☺	Very low water absorption, high UV and chemical resistance. Washing baskets, seal rings, etc.	150 °C	250–320 °C	250–800	Yes
<b>PEEK/PEKK</b> Polyetheretherketone/Polyetherketoneketone	☺☺☺	☺☺☺	☺☺	☺☺☺☺	☺☺☺☺	☺☺☺	☺☺☺☺	☺☺☺	☺☺☺	Excellent scratch, wear and chemical resistance, sterilizable, very good insulation in the temperature range up to 260°C. Rollers, insulators, containers, dosing slides, electronics, etc.	260 °C	350–420 °C	25–750	Yes
<b>PA 11</b> Polyamide 11 (Rilsan)	☺☺☺	☺☺☺	☺☺	☺☺☺	☺☺☺	☺☺☺	☺☺☺	☺☺	☺☺☺☺	For use as insulator, corrosion protection and specific applications. Washing baskets, rollers, guide rails, covers, containers, etc.	110 °C	180–220 °C	50–1000	
<b>PE</b> Polyethylene	☺☺☺	☺☺	☺	☺☺	☺☺☺	☺☺☺	☺☺☺	☺☺☺☺	☺☺☺	E.g. for drinking water pipes (including being drinking water safe), corrosion protection, impact and shock resistant, electrically insulating, UV resistant. Pipelines, covers, etc.	90 °C	150–180 °C	200–3000	Yes
<b>EP</b> Epoxy	☺☺☺	☺	☺	☺	☺☺☺	☺☺☺	☺☺	☺	☺☺☺☺	Insulation and corrosion protection without UV exposure. Containers, cover plates, etc.	140 °C	200 °C	80–700	Yes
<b>PPA 571</b> Acid-modified polyolefins	☺☺☺☺	☺		☺	☺☺☺	☺☺	☺☺	☺☺☺☺	☺☺☺	Good against salt water, corrosion protection, very good UV resistance. Fastening elements, covers, holders, etc.	70 °C	180–250 °C	100–1000	
<b>PUR</b> Polyurethane elastomer armoring	☺☺	☺		☺☺☺☺	☺☺	☺☺☺	☺☺	☺☺	☺☺☺	Wear-resistant, anti-slip, impact-resistant, sound-insulating, available in different shore hardness grades (60, 85, 95). Grip-fer fingers, gripper jaws, containers, conveyor technology, drive rollers, base plates, etc.	60–100 °C	20 °C	200–3000	Yes

☺☺☺☺ Excellent  
 ☺☺☺ Very good  
 ☺☺ Good  
 ☺ Satisfactory

High quality industrial parts and components require innovative coatings. We produce our coatings according to the highest safety and quality standards.

## Dust-free coatings in the cleanroom

We coat products/substrates with organic and inorganic paints under cleanroom conditions. On a floor space of 225 m<sup>2</sup>, our overall production is divided into three sections: material preparation, parts cleaning and coating. Preparatory work and follow-up work are performed in the core zone. With our cleanroom, we especially accommodate the medical, fine mechanics, luxury and precision engineering industries. With state-of-the-art equipment and climate control in the core zone, we achieve Cleanroom Class 7 according to ISO 14644. That allows us to produce coatings without inclusions of foreign substances. Modern cleaning methods are integrated into this zone, such as a multi-stage ultrasonic cleaner, to ensure perfection in your end product. Quality control also takes place in the cleanroom. In addition to the coating work itself, we also perform other work such as assembly work that requires cleanroom conditions.



## Quality control across the entire production chain.

No matter what field of technological production, the market is placing ever increasing demands on process safety and quality of components. Increasingly compact storage capacities, highly sensitive measuring equipment and medical devices all require state-of-the-art production standards. Any form of cross-contamination must be avoided. This means that the entire production chain at Buser is under constant quality control and is fully traceable. Our work includes coating in accordance with sensitive quality standards and legal requirements.

### Special features/advantages

- Dust-free coating
- No cross-contamination
- Full traceability
- ISO 14644 certified

### Application range

- Medical industry
- Dentistry
- Semiconductor industry
- Precision industry
- And much more



## Buser coatings – state-of-the-art technologies combined with extensive know-how

Buser Oberflächentechnik AG specialises in the production of surface coatings. With many years of experience, we offer proven technologies for a wide range of applications in all branches of industry – for single piece, series production and as well as repairs. High-quality industrial parts can be custom-produced and/or repaired cost-effectively with our coatings. We have a very extensive range of coating materials in lacquer and powder form to select from specifically for each application. We coat series parts weighing from a few grams up to 15 metric tons and anywhere up to 10 metres in length. Please contact us about larger parts.

Coated parts perform excellently under the toughest operating conditions, withstanding wear and corrosion, and offering thermal and electrical insulation. Our quality work is supported by ISO 9001 certification. Furthermore, our coatings offer outstanding chemical resistance and nonstick properties in combination with being food and drinking water safe (FDA/EU).

Our highly sought-after and comprehensive services include:

- Competent and comprehensive consulting
- Manufacture of workpieces
- Preparation of workpieces to be coated
- Coatings to meet specified requirements profiles
- On-site coating
- Quality control with reports
- Packaging and worldwide shipping

### One of the largest ovens in Europe – installed at Buser for plastic coating

We are able to coat both the outside and the inside of large, highly complex objects. Coating very large parts is in fact our specialty. We have one of the largest ovens in Europe at our plant (8 x 4 x 4 m, L x W x H). Often, containers weighing up to 15 metric tons and measuring up to 8 metres in length and 4 metres in diameter are brought to us for coating.

