

SPECIAL
COATINGS

NEW WAYS FOR
SURFACE COATING



SPECIAL COATINGS

ANYTHING BUT SUPERFICIAL



SPECIAL COATINGS PHILOSOPHY

SPECIAL COATINGS GmbH & Co. KG, SC for short, looks back on 15 years of company history. It all started with the development and distribution of customer-specific, water and solvent-based coating systems.

Since the introduction of our innovative SC-Coater® drum coating machine in the year 2005, we enjoy an outstanding reputation on the world market as an experienced system supplier for drum coating equipment as well as customised lacquering and coating materials for the high-quality decorative and functional coating of mass-produced small parts.



EVERYTHING FROM A
SINGLE SOURCE FOR
IMPLEMENTING YOUR IDEAS

Patented
coating technology

The “SC-Coater®” developed by us is a drum coating machine that sets new standards in combination with our patented special infrared/ hot air/UV drying process: With the SC-Coater®, mass-produced small parts can be coated economically and efficiently using the environmentally friendly “hot spray process” – at never-before-seen quality.

Worldwide
coating

We are offering the services of SPECIAL COATINGS GmbH & Co. KG through qualified partners around the world under the “SPECIAL COATINGS” brand since 2009. In doing so, our globally active industrial contract coating customers can benefit from the numerous advantages of drum coating at their facilities. The technology and process are used by our customers in Europe, America and Asia.





Comprehensive service for everyone: SC job coating

We offer "Services with brilliant effects!" and take care of all your project management needs – from initial sampling to the series coating of decorative and functional surfaces on mass-produced small parts.

Innovative system supplier

We earned our outstanding reputation as a system supplier through continuous application and customer-oriented further development of the drum coating process and the applied coating material technology. The simultaneous optimisation of process and product quality is our top priority.

Efficient, economical and environmentally friendly

Our coating system proves that efficient, economical coating processes and environmental awareness are by no means mutually exclusive. Compared to conventional coating systems such as Flat Bed Coating or Spindle coating systems, the SPECIAL COATINGS process is much faster with lower coating material consumption. We achieve outstanding results with a convincing cost-benefit ratio – while effectively protecting the environment through reduced coating material and energy consumption.

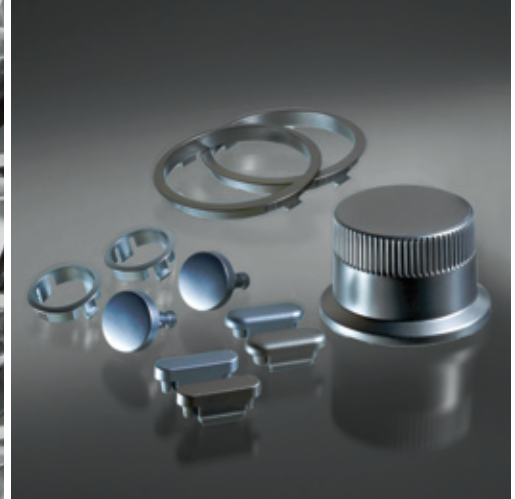
SCOPE OF SERVICES OF SPECIAL COATINGS AT A GLANCE

Design and application consulting	Coating material and substrate matching, colour blending, drum sampling	CORE COMPETENCE Coating material development, process development, system development	0-series-approval, SC-Coater® parameter optimisation	Job coating of mass-produced small parts
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SERVICES WITH
BRILLIANT EFFECTS!

SC-COATING PROCESS

PROCESS DESCRIPTION



OUR KNOW-HOW IS YOUR ADVANTAGE

Fully automated coating

The “SC-Coater®” drum coating machine developed by us is the core piece of the SC process. The coating process is fully automated with a computerised control unit. Exclusively developed coatings and lacquers along with a patented, integrated drying systems ensure optimum results are obtained – even during the coating process.

Decorative coatings

We offer pigmented or clear, water or solvent-based coating materials for decorative coatings. Our product range includes metal, pearlescent, matte galvanised, flip-flop and special effects (e.g. antique, mottled or marbled look) to enhance the visual appeal of your products.

Functional coatings

With these coatings, water or solvent-based clear lacquers (e.g. PTFE or nano-lacquers on a sol-gel basis) are used to achieve customised technical characteristics such as anti-friction, corrosion protection or abrasion resistance for metals, elastomers and other materials.

Many materials – one process

Small parts made of plastic, metal, elastomers, ceramics and other materials can be coated with SC-Coater® and our coating materials.

Examples of synthetic materials coated by us include ABS, PMMA, PS, PC or SAN as well as challenging substrates such as PP, PA in the case of PBT we even achieve a single-layer coating.

Examples of metals coated by us include aluminium, magnesium, steel, sheet metal, zinc, brass, nickel, die cast zinc, galvanised, zinc-plated, blue passivated steel etc. Pre-treatment is required in certain cases in order to improve adhesion.



ECONOMIC ARGUMENTS THAT
SPEAK FOR THEMSELVES

From filigree rings to
robust operating knobs

Our customers come from all conceivable industries and have a wide variety of requirements for coating their small parts. We at SPECIAL COATINGS are working on solutions to these coating problems every day. Decorative or functional, with SC-Coater® we are able to coat a wide variety of components for applications including cosmetics, writing utensils, household appliances, assembly technology, medical technology, toys, clothing, and automotive.

Efficient and
economical

Efficiency is one of the key advantages of the SC coating process compared to conventional methods. Fully automated drum coating eliminates the need to mount single components and generates next to no overspray. With a part size of up to 150 mm, a maximum part weight of 20 g, a drum volume of up to 70 litres and a maximum total weight of 180 kg per drum, cost savings well into the double digits can be achieved thanks to process optimisation and reduced coating consumption.

Ultimate quality –
even for filigree small parts

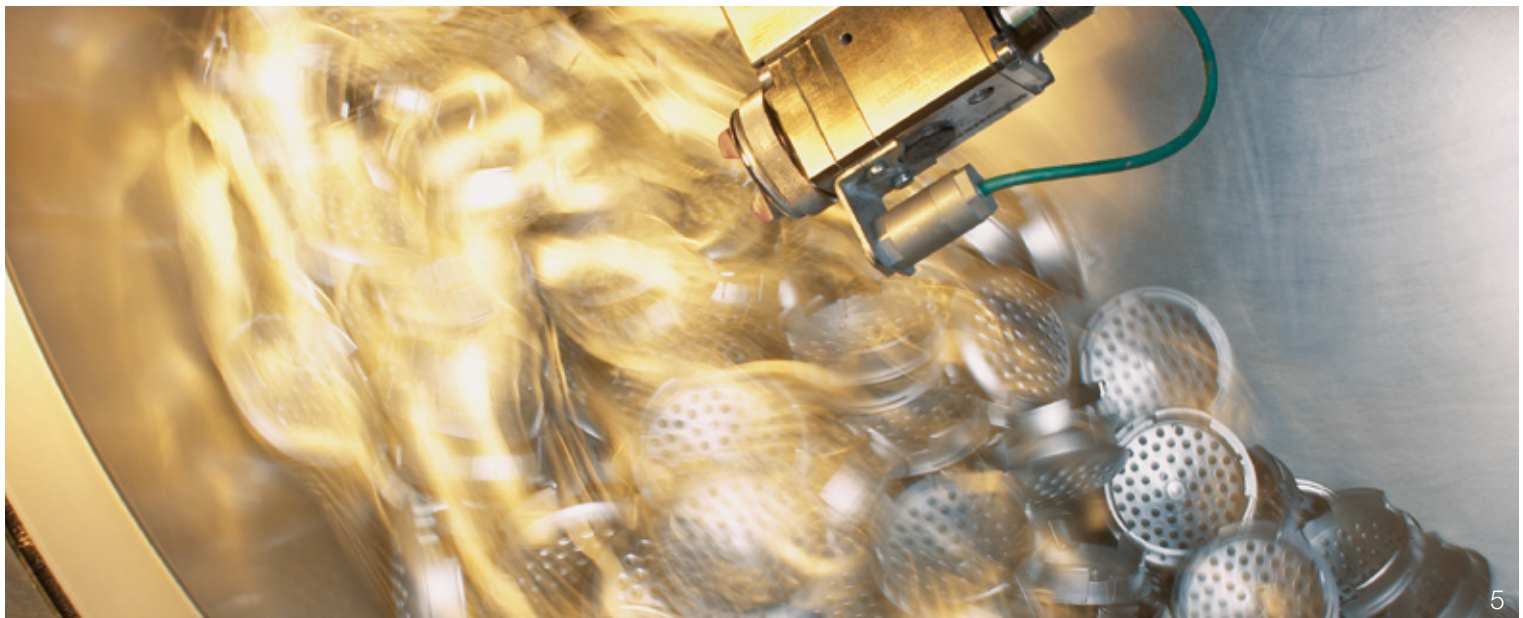
Coating thicknesses from 5 µm (1/1000 mm) are achieved thanks to thin coating application. This ensures that eroded or embossed surface structures such as brushed, grinded and sanded structures and moulded nameplate scripts remain sharp and distinct.

Easy on the environment ...

Low coating material consumption and the increased use of water-based coatings result in clear environmental advantages. SC customers value our process as an alternative to methods such as electroplating, which are not as environmentally friendly. Furthermore, our coating materials often require only one coat (e.g. in case of PBT) in order to achieve the desired visual or functional effect.

... and on the material

With conventional processes such as matte galvanising, plastic parts in particular often turn brittle. Hence many of our customers are able to achieve massive reductions in rejects with the SC technology, for example during the assembly of parts. Our process is not just easy on the environment, but also on small parts.



SC-JOB COATING

SERVICES WITH BRILLIANT EFFECTS!

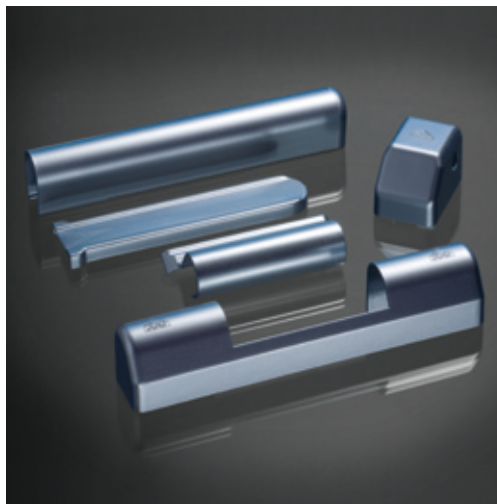


THE COMPLETE COATING SYSTEM FROM A SINGLE SOURCE

With the “Services with brilliant effects!” job coating service, SPECIAL COATINGS GmbH & Co. KG offers its customers a complete coating system from a single source. We take care of all your project management needs – from initial sampling to the series coating of decorative and functional surfaces on mass-produced small parts.



HIGH QUALITY COATING
OF BULK SMALL PARTS





- Expert knowledge** As a system supplier of drum coating machines and applied coating materials, we offer comprehensive know-how. We advise you in matters of the design and application, help you find the right colours and develop individual coating materials for you. We support you during technical implementation, from initial sampling to serial production with drum coating.
- Versatile** With the SC-Coater® drum coating machine, our coating materials and our services, we have the technology and know-how to coat small parts made of plastic, metal, elastomers, ceramics and other materials as bulk goods according to your individual needs.
- High quality** We offer our job coating service exclusively with our patented SC-Coater® drum coating machine in combination with our optimised coating materials. In addition to absolute process stability thanks to fully automated and computer-aided application technology, this also means consistently high product quality for you.
- Flexible** SC-job coating means flexibility: With varying lot sizes and colour tone adaptations, you can respond to market changes at any time. We support you with our know-how and innovativeness in the coating material.
- Global** Our customers have access to the SC coating know-how and the development of suitable coating materials – Made in Germany – around the world as part of our SC-job coating service: Either directly from SPECIAL COATINGS at our locations in Gilching near Munich and in Wuppertal, or internationally.



The range of lacquers and coatings offered by SPECIAL COATINGS is as varied as the needs of our customers. We have a large selection of standard water and solvent-based coatings and lacquers for decorative and functional finishes.

Many of the coating materials used by SPECIAL COATINGS are exclusive, customer-specific formulations and custom products for use in the SC-Coater®.



Decorative coatings

In order to enhance the visual appeal of your products, we carry numerous coating materials to meet all your aesthetic needs. They include clear and matte varnishes, metallic effect lacquers based on dual-component polyurethane coating materials and customer-specific coatings to create special effects as well as modified coatings to impart a high-end matte galvanised look.

Individual quality

The standards for decorative coatings in terms of abrasion resistance, UV stability, adhesion, defined coating thickness, resistance to chemicals and food safety are high. Our customers conduct individual tests, among others with regard to the migration of specific elements (pursuant to EN 71, Part 3), adhesion (pursuant to DIN EN ISO 2409) or hand perspiration and saliva tests (pursuant to DIN 53160).

Functional coatings

SPECIAL COATINGS offers numerous coating materials to meet the highest requirements. They include corrosion protection coatings for steel and non-ferrous metals, temporary corrosion protection coatings for metals, scratch-resistant coatings for synthetic materials, anti-friction coatings for rubber seals and primers for hard to coat synthetics such as PP.

Continuous further development

In cooperation with renowned coating manufacturers, we are always working on the further development of existing coating systems in order to expand our selection of standard products and new drum coating materials.



DEVELOPMENT OF LACQUERS
TO MEET YOUR SPECIFIC
REQUIREMENTS



- Computer-controlled** The SC-Coater® is a computer-controlled drum coating machine for small parts made of synthetic materials, metals, ceramics, elastomers and other materials. This system currently offers the most effective and efficient spray application of coatings to mass-produced small parts. In the SC-Coater®, the coating is applied to the bulk goods with the help of an automated spray gun and dried using an energy-efficient, patented infrared radiator, UV radiator or hot air process or a combination thereof.
- Fully automated** Thanks to the fully automated coating process with the SC-Coater® throughput times are greatly reduced: The need for parts-reception coating racks and time-consuming mounting is eliminated along with final curing and reworking of hard to reach areas.
- Low overspray** Overspray in the SC-Coater® is minimal: Here the coating effectiveness is up to 95 percent.
- Clean air** The coating process takes place in a sealed coating chamber with minimal odour formation. The exhaust air system is part of the SC-Coater® safety concept: A fan prevents uncontrolled emissions of the coating substance while integrated bag filters ensure environmentally friendly filtering.
- Process stability** With the help of the built-in control unit of the SC-Coater®, the parameters can be monitored, changed and saved easily and with great flexibility. This ensures ultimate process stability as well as reproducible coating quality for serial production.

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MADE IN GERMANY



SPECIAL COATINGS – WE BRING
ALL THE ELEMENTS TOGETHER



SPECIAL COATINGS offers an innovative, unique technology for coating your mass-produced small parts to meet your individual requirements.

Integrated solution
from the specialists

The SPECIAL COATINGS engineering services include:

- > Optimisation of parts in cooperation with the customer
- > Coating material development
- > Process optimisation
- > Process stability

All of these services from a single source.

Your individual requirements set the standards – challenge us!
We are looking forward to hearing from you!



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