

COMPLETE SOLUTION FOR LARGE MACHINES

Coating Systems with Supporting and Logistics Package

The components of large machines and plants are often painted or coated in different locations using different processes. Coating systems and a coordinated service and logistics package guarantee that the components match perfectly when they are finally assembled.

— In the field of industrial coating, the application of coatings to large machines or plants, such as machine tools, involves special requirements. The standards for the quality of the coatings are very high, in particular in terms of mechanical and chemical resistance. In addition, the coatings must form a strong bond with a wide variety of substrates, provide good corrosion protection and good coverage of welds and grinding marks. For this reason, coatings with a textured surface are often used.

Identical appearance

Alongside all the technical requirements for these coatings, they also face one very specific challenge. The numerous components are very often coated in a wide range of different locations and using different procedures. After the final assembly process, when the components are brought together, all the coatings must have an identical appearance. In particular, if the shade of colour, gloss and texture of the coatings are not well-matched, this will make a poor impression and be perceived as a fault with the product. It goes without saying that this is not acceptable either to the suppliers or the end customers of these high-quality machines.

The best possible match using different coating systems

The coating manufacturer FreiLacke has developed a standardised concept for this type of application, which is based on a coating system consisting of specially coordinated powder coatings and paints. These provide the best possible match in terms of colour, gloss and texture. FreiLacke also offers a range of services, including training courses and application consultancy, which help subsidiaries and subcontractors to implement the parent company or client's requirements.

Coordinating information and job specifications

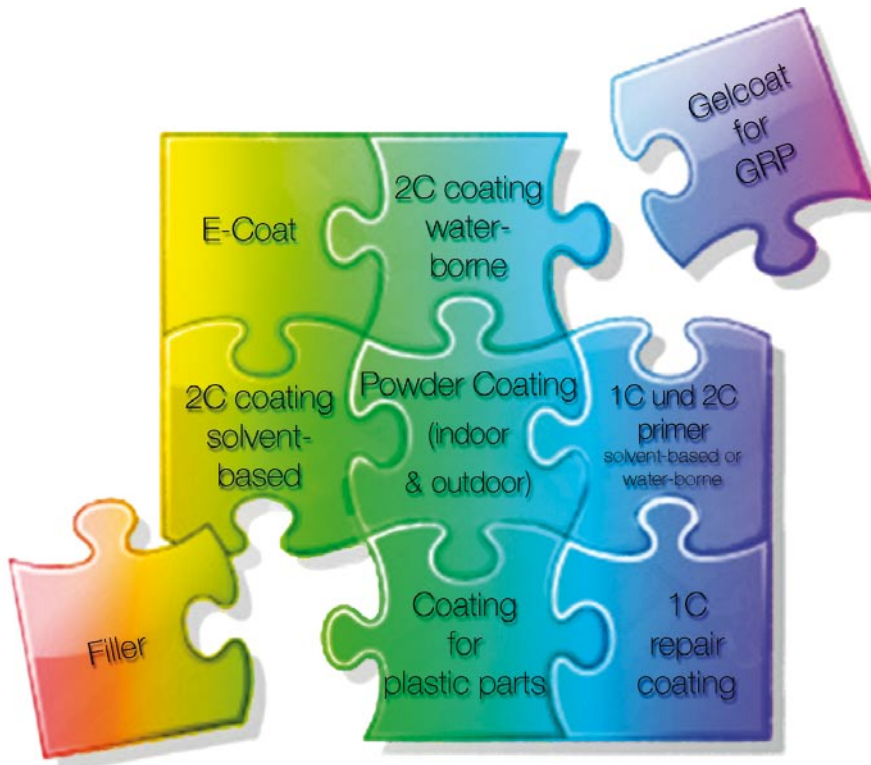
As the coatings are often applied in different locations throughout the country, it is essential for all the information and job specifications to be gathered together in one place to allow for effective communication. FreiLacke's regional field service teams and application technology department provide support for the individual production units. In addition, a contact person coordinates the implementation of the client's requirements all over the world to ensure that no information goes astray among the wide variety of job specifications.



One system: nine different coatings

The following example indicates how complex these job specifications can be. A leading manufacturer of machinery and its subcontractors had to process the following products:

- Powder coatings for the inside of machine components (material thickness up to 40 mm) and for sheet metal parts, covers and similar components.
- Powder coatings for the outside of components, such as cooling units.
- Electrodeposition coatings and powder coatings for control cabinets.
- Two-component, solvent-based or water-borne coatings for large bulky parts. A wide variety of settings are used for the different coating processes, including airless, airmix, high-pressure spraying and electrostatic spraying, together with rapid and slower drying processes.
- Two-component, ultra-high-solids coatings (90% solids content, VOC



The different coatings must be very carefully coordinated with one another in order to achieve uniform end results.

- less than 250 g/l) for large machine stands (welded or cast)
- One and two-component primers and fillers for parts which require priming and filling.
- Gelcoats and colour pastes for GRP add-on parts, such as soundproof hoods and cabin components.
- Coatings for plastic add-on parts, for example in operator consoles.

- One and two-component, solvent-based or water-borne repair systems for powder coaters or fitters.

All these coatings are coordinated to produce a uniform final result, regardless of whether 10 or 100 companies are responsible for applying them.

In addition, depending on the customer's requirements, corresponding logistics solutions can be provided. In particular, special shades can be formulated on an individual order basis for all types of coatings and these can be supplied even in small quantities to an agreed schedule to all the subcontractors. This ensures that the whole system functions smoothly and therefore helps to reduce costs.

These solutions offer the following benefits for machine manufacturers:

- one contact person
- all the coatings from one supplier
- clearly defined responsibilities
- rapid and effective communication
- consolidation of coating quantities
- fast and permanent implementation of changes.

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