

Ultra-thin-layer powder brings a wide range of benefits

To increase efficiency in powder coating, various factors need to be just right. Thanks to the expertise of a powder-coating manufacturer, a finishing-service provider is now using an ultra-thin-layer (UTL) powder that ensures the accurate fitting of components, saves resources, reduces handling and protects the environment.



Source: HMV

Founded in 1957, Herborner Metallveredelung (HMV) is part of the Holzapfel Group and, with around 65 employees, is a modern service company in the field of electrofinishing and surface coating. The company is known for the innovative ideas it deploys to save resources, reduce handling and continuously build on the high quality standard on offer.

During initial discussions with HMV, Bastian Dreyer – Regional Sales Manager at KABE Germany – repeatedly presented the wide range of products on offer. Although these were met with interest from HMV's Production Manager, Matthias Swoboda, no suitable application for a coating trial arose for several months.

However, just under a year after the first contact was made, HMV found itself looking for an economical alternative to cathodic dip coating (CDC) for specific click-in components. The coating powder for this workpiece needed to be economical while also meeting the highest standards in terms of quality and gloss level. Matthias Swoboda remembered the ultra-thin-layer powders Bastian Dreyer had presented during his visits.

UTL powder replaces CDC

KABE's UTL powders are used successfully in countless applications, and for HMV, KABE quickly found a powder coating in its portfolio that already met most of the requirements, even in its basic configuration. After customising the formulation with a high binder content, HMV is now able place an exceptionally large number of parts on its hangers. With this excellent hanger utilisation and the high degree of order efficiency for application, HMV now coats up to 15'000 parts of this type every day. "We run with coating thicknesses of 20–40 µm, which is lower than with some conventional liquid coatings. The process has been so successful that the end customer is now installing the product, which was originally conceived as an emergency solution, in series production," reports HMV's Matthias Swoboda.



Ultra-thin film coated motor strut, RAL 9005

Ultra-thin-layer powder wins the day

Following this successful start, KABE Pulverlack was able to assist HMV in overcoming further challenges. One example of this involved an engine mount for the automotive industry, which had repeatedly caused problems in production. The component consisted of a CDC-coated tube pressed together at the ends. While draining, residual CDC fluid in the tube dripped out, resulting in defects that in turn could cause corrosion-related damage. This presented an unacceptable situation for this German premium manufacturer of high-quality automotive technology.



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Despite low coating thickness - Excellent flow, very good edge coverage and best corrosion protection properties

Based on the positive experience with powder coating from KABE, HMV suggested to the client that they should switch to ultra-thin-layer powder for this product as well. KABE immediately provided samples for coating trials and, even after a very short test phase, everyone involved was already convinced that they had found the ideal solution. In addition to the dripping problems having been solved, the engine mount's resistance to stone chips was also significantly improved.

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A high-quality solution for functional epoxy powder coatings

There are still some use cases that fall outside of the UTL spectrum, which is why the two businesses recently started a new project using functional epoxy.

High-quality and visually appealing solutions are becoming ever rarer in this sector. There are often flow limitations and problems with cratering. KABE supplied a high-quality epoxy powder coating from its standard portfolio with a gloss of around 90 GU (gloss units). The sampling of the workpieces, which are for installation in the automotive sector, proved to be successful. The materials are now undergoing extensive testing by the automotive industry.

A win-win solution for all involved

"KABE's ultra-thin-layer powders are a convincing proposition due to their good flow properties, reduced effort in handling and preparation work, lower material consumption and environmentally friendly lower curing temperatures. All in all, this is a win-win situation for both us and our customers – a classic example of the technical competence of the powder-coating supplier," says HMV's Matthias Swoboda. He is convinced that he has found an excellent partner in KABE Pulverlack, and particularly appreciates the uncomplicated and swift processing of enquiries. "Whenever I need a sample, KABE delivers it to me within a very short period of time. That's perfect service and real client focus," he enthuses.

"Our philosophy is based on client orientation and always listening to our client's concerns, because in today's fast-moving world of surface technology, short response times are the be-all and end-all when it comes to surviving in the market," says Bastian Dreyer, as he packs a box of powder coating from KABE Pulverlack's broad portfolio into his car and sets off to solve yet another problem in a coating company.



Rapid sampling, perfect service



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