

## Duplex with low temperature powder coating

# FASTER AND MORE ENERGY-EFFICIENT

*On the site Bruchsal of trademark provider Voigt & Schweitzer, a low temperature powder coating is used on hot-dip galvanized substrates. Powder coating has therefore become more flexible and economic.*

For 125 years, the Voigt & Schweitzer, is a term when it comes to hot dip galvanizing. With 2000 employees at 35 European locations, the company is a market leader in the field of corrosion protection to steel by zinc and offers individual solutions under the umbrella brand "Zinq", even for the most demanding applications.

The site Bruchsal is at the Voigt & Schweitzer group a competence center for coatings. There is a wide range of components coated with powder coating for the companies in the Group and as wage coaters for numerous customers in the area.

The main part of the diverse clientele comes from the construction industry, plant engineering and architecture. These customers demand a high quality, wide color variety and short delivery period.

### **Preferred partner for exceptional projects**

The range of tasks to battle every day makes Voigt & Schweitzer a preferred partner for extraordinary projects . For example, when noble balconies for the wellness of the thermal baths in Erding should not only be galvanized and coated, but also transported to a customer in special pallets to the construction site. Another challenging project was the processing of components for a luxury sky garage in Singapore, where 116 carports were built on 29 floors. Each car is parked automatically so that the owners of the apartments at any time can have their luxury cars even at dizzying heights in sight.



*Large and heavy galvanized parts are powder-coated at Voigt & Schweitzer in all colour variations.*



#### Duplex against gas extraction

A main issue in the powder coating of surfaces of hot-dip galvanized steel is an outgassed surface.

A good surface coating with powder coating requires therefore a powder coating, which minimizes pores and bubbles. "We use the duplex powder coating system of Karl Bubenhofer AG for many years. No matter what color variations, this system is proven in use, because it reliably prevents the unwanted vapours", says Andreas Götz, Operations Manager of factory in Bruchsal.

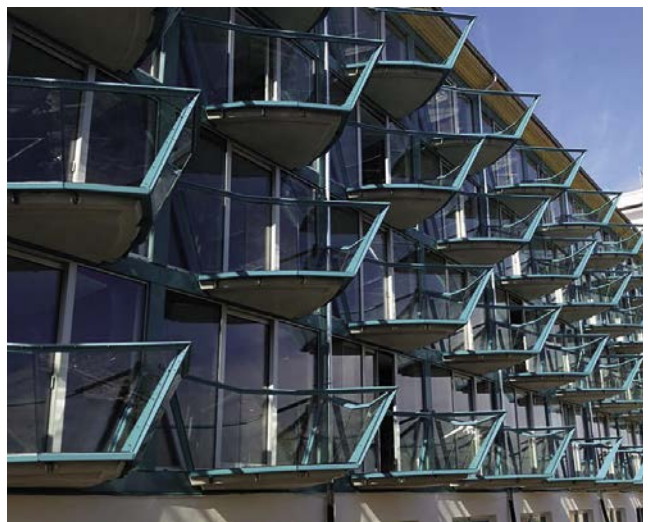
The duplex method is first a primer (KABE EP-20-Korroflexprimer-GU) applied and captured in a second round of a coating with powder coating PES-125-GU. "The formulation of Karl Bubenhofer AG is designed so that the primer seamlessly blends with the zinc surface. The layer closes the pores of the zinc surface and prevents the effect of outgassing. The primer POLYFLEX® EP-20 has a very nice smooth texture, which compensates the rough surface of zinc, that produces a smooth surface texture of the topcoat" Marko Büttgen, Sales Manager, at KABE Pulverlack Deutschland explains advantages of the duplex system.

#### Bottle neck eliminates powder dryer

Voigt & Schweitzer in Bruchsal blast, galvanize and then coat with powder large parts up to 8 meters length, 2,5 meters height and a weight of 1200 kg. "Because the parts are very large and some have thick base plates by 40 mm, it takes up a lot of energy. This means that such components for the curing process must remain in the oven for up to 90 minutes", Götz explains one of the challenges of



*One of many challenging projects at Voigt & Schweitzer: noble balconies for the wellness of thermal baths in Erding with hot-dip galvanized and powder coated elements.*



the coating. This makes the oven to the bottle neck in production and hampers a continuous production process. As long as the hanging parts occupy the oven, no further orders can be handled in the coating system.

Voigt & Schweitzer searched at the KABE Farben a solution to this problem and set for some time for standard colours of powder coating of PES-125-NT-GU low temperature variation of the standard powder coating. The result convinced Götz in a short time: "The curing time of large parts has been reduced from 90 minutes to 60 minutes. The oven creates a much larger material throughput, and avoid material jams. With this time saving, we have sustainably optimized the work process, and a new, high-performance coating system can fully demonstrate its strengths. That explained to the Voigt & Schweitzer an added value in terms of efficiency, customer service and quality in the result. Based on this experience, continually more shades in NT quality are processed and efficiency of the coating is further improved.

For Voigt & Schweitzer in Bruchsal a high process and production flexibility is essential for success on the market. To help ensure this advantage, it needs partners who flexible, easily and quickly deliver products of the highest quality. "With Karl Bubenhofer AG we have a partner we can always count on and that provides us with the best combination of outgassed powder coatings in a low temperature quality for the powder coating. This brings benefits every day not only to us as a company, but also our customers", Götz is convinced.

Also Marko Büttgen of the KABE Pulverlack Deutschland confirms this close relationship: "A company like Voigt & Schweitzer must comply with very short delivery times and meet whilst preserving the highest standards of quality. Since it happens, that a batch with specific color shades should be coated within two days. This requires us as powder coating suppliers. Because we are a very flexible company, we can react quickly and easily on our customers requests and deliver promptly even smaller quantities of the powder coating on time." The close partnership between the Voigt & Schweitzer and the powder coating manufacturers should guarantee best quality of hot-dip galvanized and powder coated components in the future for users in the construction industry.

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*The low temperature powder coating is characterized by smooth design and uniform coating thickness.*

VOIGT & SCHWEITZER BRUCHSAL GMBH & CO. KG  
BRUCHSAL

*Voigt & Schweitzer in Germany remains the only trademark supplier in the field of galvanizing and opens up new horizons for the galvanizing.*

*Since 2009, the Fontaine is Voigt & Schweitzer is a business unit of Fontaine Holdings NV, to hot-dip galvanizing activities in the Benelux and Eastern Europe and are bundled at 100 percent family-owned investments.*

