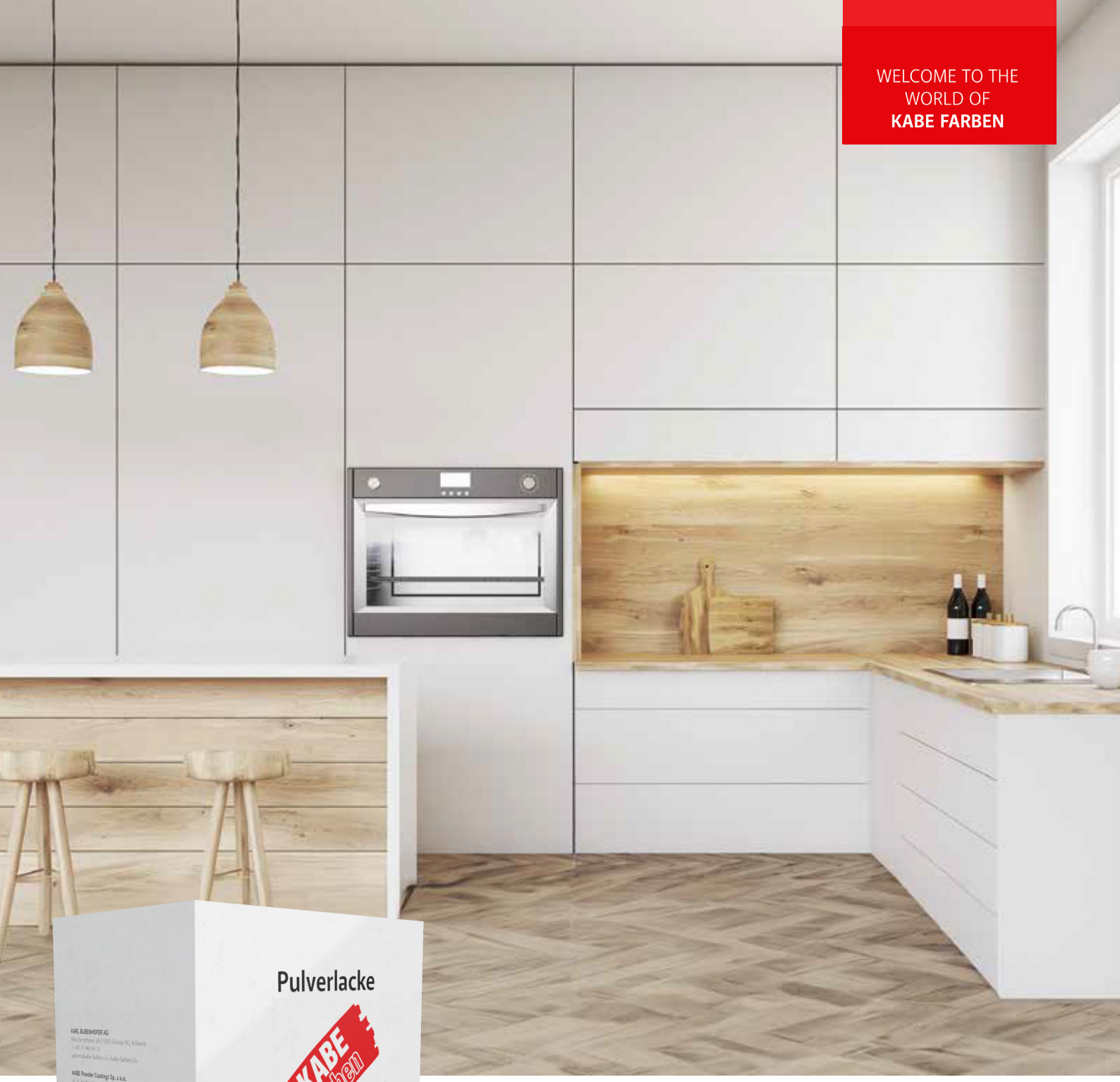
WELCOME TO THE
WORLD OF
KABE FARBEN



KABE
REACT!VE®

Powder coatings

kabe-farben.ch

KARL BUBENHOFER AG



MDF POWDER COATING FOR MAXIMUM PRODUCTIVITY AND PERFORMANCE

Our MDF coating represents a major advance in the design, development and planning of new furniture and fittings. It can be used to coat components of almost any shape and size, including 3D surfaces, edge profiles, cavities and cut-outs. Its application is almost unlimited.

The technology offers many different benefits. The powder coating is completely seamless and covers every area of the component or piece of furniture. It gives designers of furniture, interiors, fixtures and fittings a broad range of design options. To allow for maximum creativity, it comes in a wide variety of different colours. This allows for perfect surfaces and flawless interiors.

If furniture comes into contact with moisture when it is in use, this presents a problem for wood-based substrates. A powder coating is the ideal protective solution. It creates a smooth, sealed finish on the edges, and its flexibility prevents cracks from forming in narrow areas during processing.

This makes the MDF powder coating the perfect answer for kitchen and bathroom furniture.

Benefits at a glance

- The KABE REACT!VE® PES-75 range is completely non-hazardous
- Reliable and user-friendly
- Seamless edges
- Variety of design and colour options
- Tough surface finish
- High levels of productivity
- Low environmental footprint
- Good storage stability ‹ 25° C







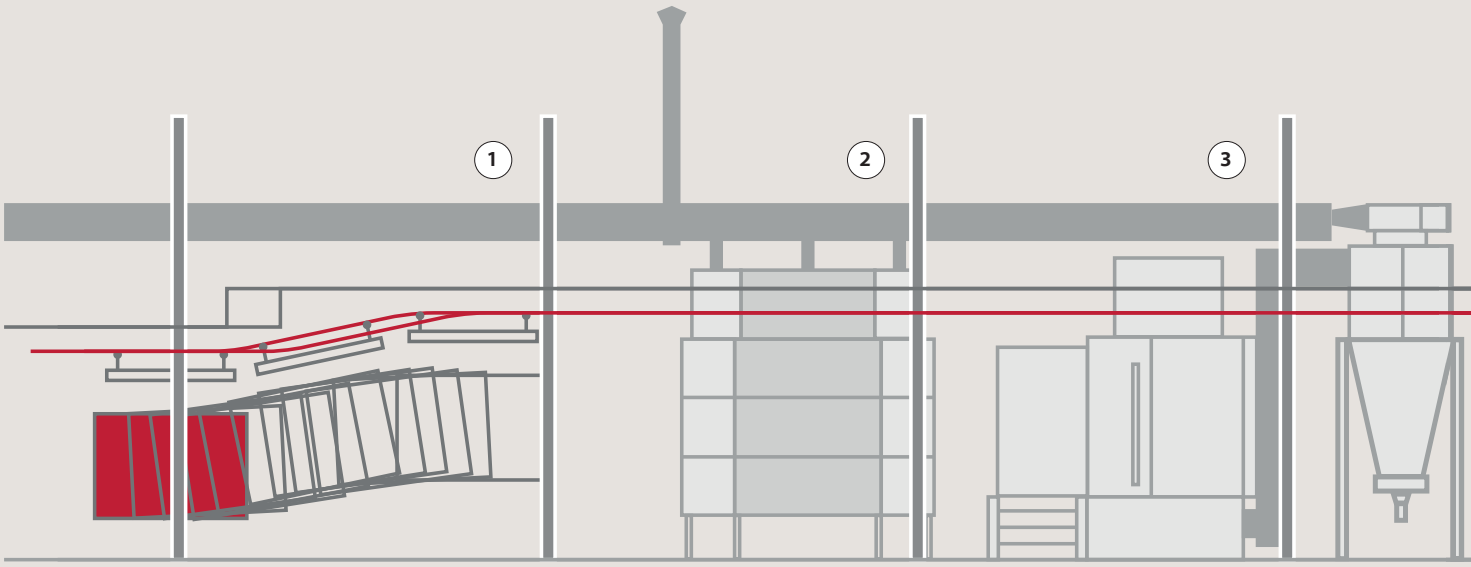
Applications and Substrates

Typical applications

- Kitchen fronts
- Bathroom fronts and furniture
- Office furniture
- Exhibition stands and shop fittings
- Living room and children's furniture
- Toys and design items

Possible substrates

- MDF and HDF
- Solid wood and plywood
- Wood composite panels
- Plastics
- Other heat-sensitive substrates (fibreboard, plasterboard etc.)



Simple, fast, reliable and efficient.

1. Hanging up and cleaning
Factors such as vertical positioning, good earthing and maintaining a minimum distance between the components to be coated are just as important as final cleaning with compressed air or flame treatment.

2. Activating (pre-heating)
During the activation phase, the surface of the MDF is pre-heated with infrared radiation, without heating the core of the component. This increases the electrical conductivity of the MDF components that are being coated.

OVERVIEW OF THE POWDER COATING PROCESS – HIGH PRODUCTIVITY AND SHORT THROUGHPUT TIMES

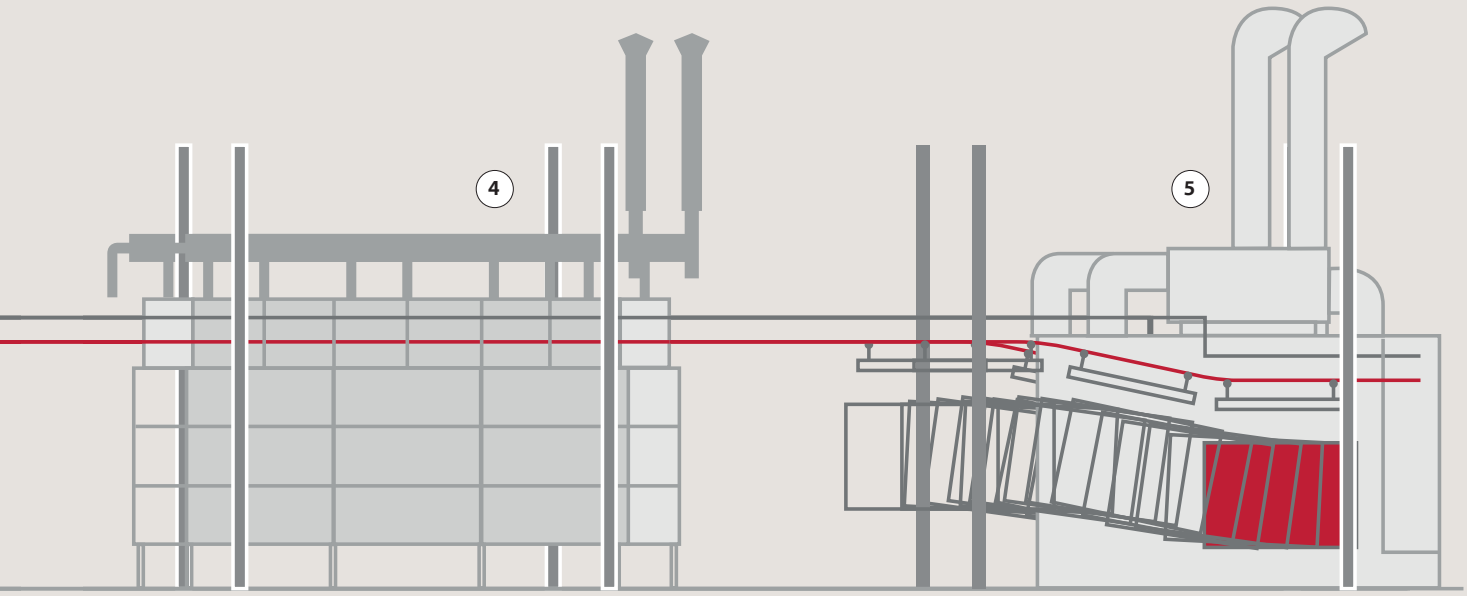
High-tech powder coating plant at the KABE Farben powder coating technical centre

KARL BUBENHOFER AG modernised its powder coating technical centre and invested in a high-tech powder coating plant, among other things. With its ultra-modern appication equipment and flexible curing options, the new plant allows the technicians to run practical coating tests, evaluate newly developed products and provide high-quality training.

A spacious plastic spray booth with a state-of-the-art extraction system is fitted on both sides with automatic spray guns mounted on vertically arranged reciprocators. The plant has been equiped with counter-electrodes and with highly advanced software specifically for coating MDF and other non-metallic materials.

The powder coating is supplied via a semi-automatic powder centre with an integrated control unit and an ultrasonic sieve through which all new and recycled powder passes. A closed circuit makes it possible to identify how different types of powder will behave.

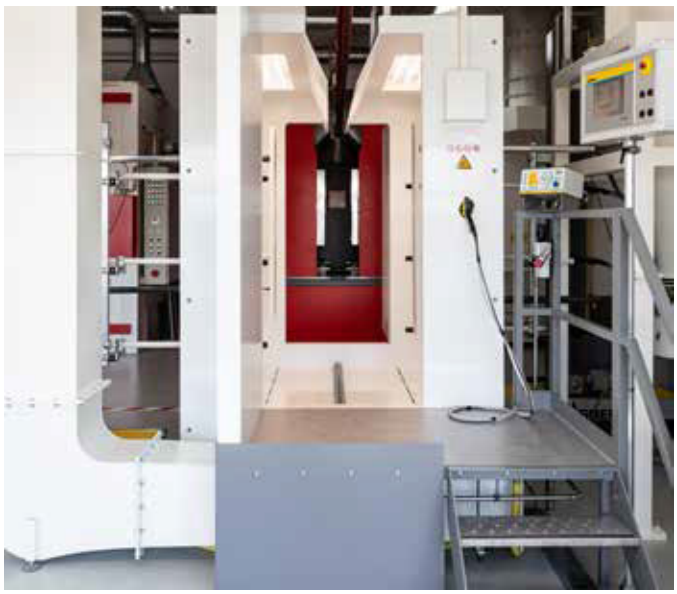
The curing oven has been specially deveoped for KARL BUBENHOFER AG. The coated components are moved into the batch oven where the powder coating is cross-linked using medium-wave infrared heaters in a controlled process. If necessary, the heating elements can be replaced with long-wave infrared heaters or UV heaters. The oven can also be operated in recirculated air mode or combined mode. With this range of different options available, the development engineers can cross-link any type of powder coating reliably.



3. Coating
The components are coated with powder on both sides using automatic corona spray guns. The use of a counter-electrode ensures that the powder is evenly distributed across all areas of the components.

4. Curing
In this phase, the powder is cross-linked and cured in an infrared oven. The duration and temperature of the curing process depend on the type of powder. The process is typically carried out at 130–150°C with curing times of three to five minutes

5. Cooling and unloading
The last phase involves cooling the coated components using either a natural or an active cooling process. The components can be stacked immediately.









KABE REACT!VE® PRODUCTS

KABE REACT!VE® is a versatile product that can be applied in one or two layers on heat-sensitive subsrates. This is made possible by the low curing temperature and short curig time of the powder coating.

The powder coating can be used in a single layer for protective and decorative purposes. It can also be applied as part of a two-layer system – either with two layers of the same coating, eliminating the need for a colour change, or with a primer and a top coat to provide even greater resistance to mechanical impacts.

All the products in the KABE REACT!VE® range are highly flexible and provide a durable coating on a variety of substrates and in different cimatic conditions without forming cracks. The polyester system has excellent resistance to UV light, which means that it can be used for outdoor applications. The surface finishes that are currently available range from fine-textured through to PeachSkin (deep matt).

All the KABE REACT!VE® powder coatings are classified as non-harmful to the environment; the hybrid coatings are also completely non-hazardous.

The KABE REACT!VE® product range complies with the strict, internationally recognised regulations concerning the migration behaviour of paints and coatings used on furniture.

Single-layer systems			
Hybrid (PES-75)	From rough-textured to PeachSkin	From silk gloss to dull matt	Custom shades for individual customers
Polyester (PES-125)	From rough-textured to PeachSkin	From silk gloss to dull matt	Custom shades for individual customers
Two-layer systems			
MDF-Primer (PES-75)	Silk matt in a light and a dark shade		
	Can be combined with many other coating systems (with all the KABE REACT!VE® top coat systems; other powder coatings and paints must undergo individual tests)		

KABE REACT!VE® PROPERTIES

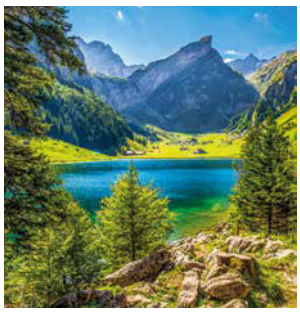
KABE REACT!VE® certified by

TÜV Süd	TÜV Rheinland	CATAS

Technical properties

	Standard	KABE REACT!VE® Hybrid (PES-75)	KABE REACT!VE® Polyester (PES-125)
Coating thickness		100 - 120 µm	100 - 120 µm
Cross-cut	EN ISO 2409 - 2 mm	GT 0	GT 0
Chemical resistance	DIN 68861 - 1	B	B
Abrasion	DIN 68861 - 2	B - C	B - C
Scratching	DIN 68861 - 4	B - C	B - C
Dry heat	DIN 68861 - 7	A	A
Moist heat	DIN 68861 - 8	A	A
Light resistance	DIN EN 15187	> 6	> 6
Concealed hinge test (EGGER-MBPL 25 mm)	VDI Norm Concealed hinge test	≥ 48 h	36 h - 48 h
Resistance to alternating atmospheres	DIN 68930	No visible changes	No visible changes
Resistance to water vapour	DIN 68930	No visible changes	No visible changes
Resistance to damp atmospheres	AMK-MB 005 Module 2	No visible changes	No visible changes
Migration behaviour	Bisphenol A-S-F	Complies	Complies
IKEA IOS-Mat-0066	Lead content	Complies	Complies
	Tin content	Complies	Complies

The MDF powder coating offers unparalleled environmental advantages



KABE REACT!VE® powder coatings are classified as non-harmful to the environment. The MDF powder coating process is an environmentally friendly alternative to traditional paints, lamination or film coating. The CO_2 emissions per square metre of coated surface are much lower for powder coatings than for conventional UV-cured and water-based paints. In addition, powder coatings contain no solvents. The closed powder circuit results in a minimal environmental footprint.

POLYFLEX® Powder Coatings

Sampling options

A5 KABE Standard surface samples

A5 aluminium surface samples
(including product information)

- Delivered in a practical sample case, ideal for filing.
- The surface patterns are coated according to your specifications if required.



KABE powder coating sample

- We produce 1.5 kg of powder according to your requirements.
- Delivered in a 1.5 kg mini carton.
  (not valid for all items)



Request samples and technical information.

Powder coatings I Paints + plasters I Facade insulation I Industrial coatings

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