

**FreiLacke**



## **Powder-in-Powder**

Faster and Stronger | Coat twice – bake once



## The principle

Having to bake large, heavy components twice consumes a lot of time and energy due to the long baking times in the oven. A powder-in-powder system, which requires only a single baking process for the primer and top coat, therefore lowers energy costs and significantly reduces process times.

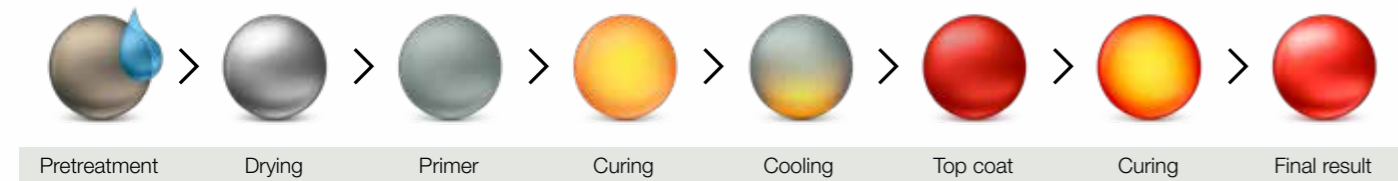
**FreiLacke** has developed a powder-in-powder system that, used in combination with the Tribo lance, also allows the reliable coating of very complex components.

For example, the construction and agricultural sectors feature very large and heavy components with complex shapes. Thanks to the benefits of the powder-in-powder technology, the utilisation in these areas is particularly interesting.



## Comparison of coating processes

Conventional coating process with two baking processes:



Powder-in-powder coating:



### Application examples Powder-in-powder technology:

- Construction machinery
- Agricultural machinery
- Tower cranes
- Steel structures

## The advantages

Powder-in-powder technology offers numerous advantages. The absence of baking and cooling processes reduces energy consumption and production times, which consequently increases productivity.

In addition, the technique incurs lower investment and maintenance costs thanks to the absence of conveyor systems, ovens and cooling zones, meaning that less production space is needed.

The powder-in-powder procedure also provides a higher level of corrosion protection in comparison to single-coat powder coating. Currently the technology is primarily applied in the coating of heavy construction and agricultural machinery. This is where productivity increases and energy savings through the elimination of baking and cooling processes are the highest.

- **Productivity increase of up to 50%**
  - Reduced coating process
- **Energy savings**
  - Elimination of the baking process
- **High level of corrosion protection**
  - In particular at the edges compared to a singlelayer polyester powder coating
- **High weather resistance**
  - Use of a super durable polyester top coat
- **Reduced investment and maintenance costs**
  - One fewer oven needed
  - One fewer cooling zone needed
  - Conveyor technology savings
  - Less space needed



**Powder-in-powder technology offers greater protection compared to single-layer polyester powder coating – in particular at the edges**



*Single-layer polyester powder coating*



*Powder-in-powder technology*

## The application

A Tribo lance makes the highly efficient and ergonomic coating of large workpieces possible without the use of expensive lifting platforms.

The new Tribo lance allows for the efficient powder-in-powder coating of large components with complex shapes as well as the application of higher layer thicknesses in order to meet the requirements of heavy-duty corrosion protection.

### Advantages of the Tribo lance compared to the conventional Tribo gun

- **Much larger charge potential**  
even when using less air > „soft cloud“
- **Greater coverage performance**  
due to increased exit volumes of charged powder
- **Lance is telescopic**
- **Compact design and nozzle head angle adjustment capability**



You can find additional information at  
[www.pulver-in-pulver.de](http://www.pulver-in-pulver.de)



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