



Industrially viable MDF powder coating

Seamless all-round coating

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Powder coating of MDF boards? Not feasible for mass production! This was the unanimous view within the industry. However, WAGNER has now made the powder coating of standard MDF boards industrially viable - which brings many advantages.

When you compare the powder coating of standard MDF boards to traditional processes such as liquid coating, lamination or foil coating, the facts speak for themselves: costs are reduced by around 25 percent, materials by around 20 percent, and CO₂ emissions by 3.8 kilograms per square meter*. You also get a seamless, all-round coating with a uniform, scratch-proof surface that can be worked on immediately.

All of this persuaded a well-known Slovakian furniture manufacturer to invest in two WAGNER powder coating lines. "They have more than met our high expectations. The system is a resounding success, both from an economic and environmental point of view," explains the production manager at the company, which processes standard MDF boards in both high and low volumes.

But how exactly was WAGNER able to make the new process available, especially for mass coating of complex shapes? Firstly, the specialist for powder coating solutions assembled a research group, in which MDF coaters, powder manufacturers, as well as furniture and MDF board producers all worked together. The biggest challenge was achieving uniform charge distribution in an organic material such as wood: medium density fiberboards are unevenly moist, have low electrical conductivity and a varying density of edges and faces. To overcome this problem the WAGNER team developed **special aggregates** at their site in Altstätten, Switzerland, with which even standard MDF boards can be uniformly electrostatically powder coated. Another factor in our success was the new low-temperature powders, which are processed in modern energy-saving radiation furnaces.

"Powder coating of standard MDF boards is a complex subject with its own unique demands. Through time- and cost-intensive teamwork we have achieved a real breakthrough that will benefit our customers greatly," said Thomas Peter Schwarz, a WAGNER powder specialist





in Altstätten. "We are very proud of this."



*in high volume production, compared to traditional liquid coatings