

Polycarbonate Chocolate Mould Production

Business overview

- agathon GmbH is the world's largest supplier of polycarbonate chocolate moulds with an annual production of over 700,000 moulds, serving over 2600 confectionery customers.
- As demand increased, agathon GmbH decided to relocate into a modern production facility to increase automation and streamline production.



Business challenge

- Dust contamination in their production increased risk of black specks in finished moulds.
- De-centralized drying and dosing increased the risk of polycarbonate taking up moisture, which can result in streaking and ultimately reject products.
- The need to keep machines running as much as possible to maximize production efficiency.

Business outcomes

- Streaking and splay completely eliminated, even with the use of complex colour additives.
- Immediate gains in process stability and reduction in product rejects, especially for long shot cycles of up to 120 seconds.
- Significant reduction in black-speck contamination of the final product.

Capacity enabled

- Keeping materials fully conditioned in the insulated, high temperature hopper, ideal for hygroscopic materials like PC and PA.
- Eliminated hydrolysis-related defects, like splay, streaking, or other surface flaws.

Business impact

Revenue increase	✓
Costs decrease	✓
Increased product quality	✓
Increased efficiency	✓

Customer case

Labotek
Power in Plastics

agathon
moulding

“After installing the MDS Balance Drydose, our previous streaking problems when adding additives are simply gone!”

- Bernd Wilming, Plant Manager at agathon GmbH

Business solution

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Technology enablers

- Gravimetric dosing accuracy ensures precise colour dosing, even with large shot weights of 3- 6.5kg.
- Extended dosing cycles (up to 120 sec.) developed specifically to meet agathon GmbH's long IMM shot durations.
- Insulated 3.5 L hopper with four hot-air inlets ensures consistent material conditioning.

Customer case

 **MOVACOLOR**

Technology solution

Capabilities

- Drying and dosing in one compact unit, directly at the machine inlet.
- Works with PC, PA, PMMA, PETG, ABS, and other hygroscopic materials.
- Maintains consistent moisture levels during dosing.
- Stable drying temperature control up to 120° C

Benefits

- More reliable dosing allows machines to run with fewer stoppages, supporting their 24/7 production targets.
- Total elimination of streaking and black specks cut scrap levels, lowering the cost per mould produced.
- Fully conditioned polycarbonate ensures uniform melt quality in the screw.

Requirements

- Required software change to enable longer dosing cycles of their IMM.
- Training operators to transition from manual mixing and decentralized drying.