NON-STICK COATINGS REDUCE PRODUCTION DOWNTIME

Even under cleanest conditions processing residues like micro particles and dust may settle on manufacturing equipment. Subsequent cleaning minimizes the risk of cross-contamination and guarantees quality but leads to high costs and causes downtimes. Furthermore, valuable material may be lost during the production process.

To address such issues, Fraunhofer ISC offers a tool box solution with special non-stick lacquers adaptable to specific customer requirements. The coatings show excellent non-stick properties and can be easily applied to production equipment.

Advantages of the non-stick coating
- Tool box solution for coating of different substrates like glass, ceramics, metal and some plastics
- Easy application by conventional lacquer coating technologies (e. g. dipping, spraying) with subsequent thermal curing
- Surface remains almost unchanged as the layer thickness is far below 1 µm
- Special structure prevents sticking of particles and dust to surfaces (similar to lotus effect)
- Applicable for heterogeneous and homogeneous processing dusts
- Coating is non-fluoride, temperature-resistant, food-safe and durable
- Upgrading of single components of existing plants
- Low-cost endowment of new production plants before assembly with minimal material consumption

Examples of previous applications
- 15-year long-term tests of anti-dust coating on glass, e. g. for windows of Cologne Cathedral
- Field tests in desert regions of anti-soiling protection for PV-glass
- Testing of coatings with non-stick effect for printing ink production

Possible applications
- Food processing
- Pharmaceuticals
- Printing ink production
- Architectural glazing
- Solar panels and photovoltaic plants
- Filling and packaging

Cooperation with Fraunhofer ISC
We test the application of different coatings for customer specific problems, adapt lacquer compositions and support customers with the technology transfer into manufacturing processes.