

Objective

Diamond-like carbon (DLC) coatings are interesting for industry and are used to protect a substrate from aggressive external environment (impact, scratch or corrosion).

Hauzer Techno Coating is developing equipment to apply DLC coatings as a smooth and scratch-resistant undercoat for decorative coatings on plastic housings, especially for the 3C (cameras, communication and computer) devices.

Research topics

- Quantitative evaluation of adhesion, wear and hardness.
- Investigation of the relation between material properties (i.e. process settings) and system performance.

Industrial benefits

- Fact-based development of hard and scratch-resistant decorative coatings on plastic housings.
- Application of undercoat and decorative top coat in one coating machine.
- The technology is protected by a patent application of Hauzer (DLC on plastic).
- First estimate: successful implementation may generate an additional 10%-15% in yearly sales of decorative PVD-systems.

