

■ GENERAL INFORMATION ON NANOCOMPOSITE COATINGS

PROPERTIES OF COATINGS

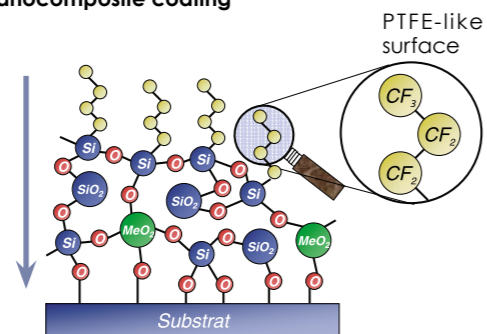
- Highly effective, glass-ceramic- or teflon-like, easy-to-clean hydrophobic coatings
- Coloured, transparent or decorative ("soft feel") and anticorrosive coatings
- Highly non-abrasive by chemical bonding of the coating to the substrate (in contrast to conventional PTFE coatings)
- Good chemical and thermal resistance
- Barrier to diffusion for certain metal ions
- Cleanable with minimal effort

BACKGROUND KNOWLEDGE

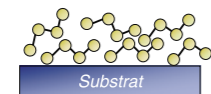
Strictly speaking, not a "coating", but a permanent chemical modification of a part's surface by a gradient material

Example of a nanocomposite coating

Decreasing fluor carbon content creates soft transition from PTFE-like to glass-like structure



Glass-ceramic, polar Si-O-network with embedded nano particles and tight chemical bond to the substrate



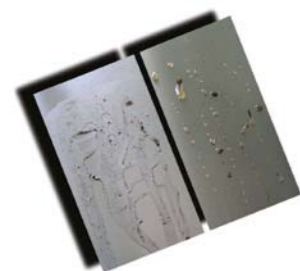
In contrast, traditional PTFE coating without chemical bond to the substrate

SKILLS OF MÖLLER NANOCOATINGS

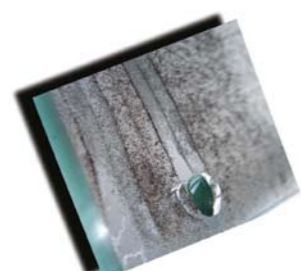
- Surface finishing with nanocomposite coatings; coating systems developed in-house
- Coating of steel, aluminum, brass, copper, glass and plastics like PC
- Coating of mid-sized down to very small parts, in particular coating of the inside of thin cannulas/tubes
- About 20 standardized and tested coatings available (list is continuously being extended)
- Development of coatings to your needs and specifications in a project setup possible

APPLICATIONS

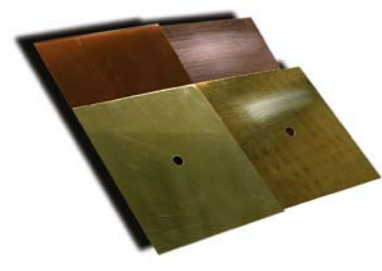
- Dirt-repellent coating for engineered parts and covers
- Scratch-resistant coatings for display covers made from plastics
- Easy-to-clean, biocompatible, autoclavable coatings for medical technology
- Interior and exterior coating of cannulas for chemical analysis technology and human medicine



hydrophilic ... or hydrophobic



... dirt-repellent...



...scratch resistant (left side coated, right side uncoated)

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