

„FEW Chemicals receives European funding for the development of modern anti-fingerprint coatings“

Goal of the research and development project, which is conducted by FEW Chemicals in cooperation with IMWS Fraunhofer Institute Halle, is the design of a hybrid nanocoating material based on the sol-gel chemistry. This industrial-suited coating is to be applied on steel and other metal surfaces, providing an effective anti-fingerprint (AFP) effect.

AFP coating for steel surfaces has enormous market potential, such as in areas of optics (metallized films, optical filters, lenses, mirrors, laser optics) and appliance industry (stainless steel items, plastics, glas), as well as for electronics and automotive industry.

The AFP effect is obtained by combining the advantages of thin sol-gel coating technology with designed physical properties, imparted by superamphiphobicity (water and oil repellent), anti-reflective effects and self-cleaning properties. The long-standing knowhow of FEW Chemicals in the design and production of sol-gel materials for customized coatings and varnishes, together with the competence of IMWS in the area of materials science and surface physics, enables the development of novel and highly innovative products targeting high growth markets. The envisaged materials will be applicable by spraying techniques and cure in high speed at low temperatures. Beyond the desired repellent surface properties and the optical suppression of fingerprint visibility by adapting refractive indices, the coating have to be abrasion-resistant, colorless, and transparent when applied to steel and other surfaces.

Furthermore, the collaborative research project will result in a method which allows the characterization and optimization of surface properties, such as energies and 3D topology, thereby creating a sound fundament for the future design of novel and innovative coating materials.

The funding by Investitionsbank Sachsen-Anhalt will apply for three years and is co-financed by the European Regional Development Fund (EFRE).



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