

Business Units

**Fraunhofer FEP – one of the leading research and development partners
for surface technologies and organic electronics**

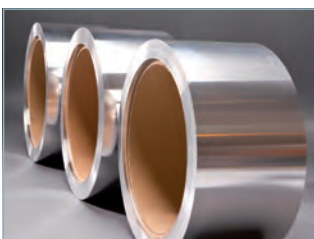
Flexible Products



We develop technologies, processes and key components for the vacuum coating of flexible products such as polymer films and thin metal foils, textiles, membranes and paper. Surface refinement with thin layers enables these materials to be used in a variety of innovative products. A very effective, cost-efficient process for modifying the surfaces of flexible materials is vacuum web coating, so-called roll-to-roll processes.

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Coating of Metal Sheets and Strips, Energy Technologies



We are concerned with the large-area vacuum coating of metal sheets and strips at high deposition rates. In addition to the environmental friendliness the advantage of our processes is the almost inexhaustible range of layer materials which far exceeds the materials that can be used for conventional surface modification.

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Development of Customized Electron Beam Systems and Technologies



We use electrons as a versatile tool. The thermal effect of electrons is used for welding or evaporating metals, and for modifying the surface layer of metals. The chemical-biological effect of electrons is used to cure organic materials, change their surface properties, and sterilize materials.

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Contact

Ines Schedwill
Phone +49 351 8823-238
ines.schedwill@fep.fraunhofer.de

Fraunhofer Institute for
Organic Electronics, Electron Beam
and Plasma Technology FEP

Winterbergstr. 28
01277 Dresden, Germany

www.fep.fraunhofer.de

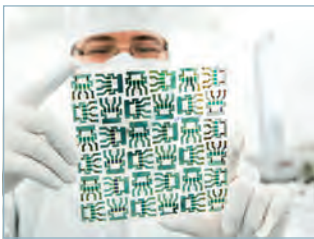
Coating of Parts



We coat 3-dimensional objects made of metal, ceramics, or glass in order to adapt their surface properties and so improve their functionality and service life. Using vacuum coating technologies such as sputtering technology, plasma-activated high-rate deposition, and high-rate PECVD, we improve the resistance of tools and components to corrosion, scratching, and abrasion.

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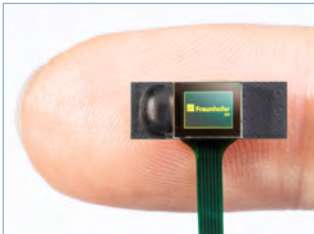
Precision Coating



We develop processes and technologies to precisely and homogeneously apply electrical, optical, acoustic, and magnetic layers and layer systems on large areas. This provides the basis for new products in the area of optics, electronics, sensor technology, photovoltaic systems, storage media, and biomedical technology.

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Microdisplays and Sensors



Fraunhofer FEP offers its customers the development of complete prototypes and systems of OLED-based microdisplays and sensor components. The entire range of activities for OLED-on-Silicon applications, from CMOS design, OLED stack tuning, optic design, system integration, interface programming is covered by our scientists and engineers.

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Medical and Biotechnological Applications



Fraunhofer FEP has been developing technologies for modifying and coating surfaces for many years. Today, this expertise allows us to apply biofunctional coatings to surfaces and to customize surface properties. We are increasingly using this know-how for medical technology, for example to functionalize dressing material or to improve the biocompatibility of implants.

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