EXPERIENCE THE FUTURE OF PVD COATINGS

Impact Coatings is a leading developer and supplier of highly efficient coating solutions and equipment for the global market.
FUEL CELLS

The Ceramic MaxPhase™ coating is the primary choice by automotive companies globally for bipolar plates in PEM fuel cells. Unique properties for efficient and long-life fuel cells, in combination with very cost-effective production solutions, make the automotive industry rely on Impact Coatings as production ramp up for hydrogen-powered electrical vehicles.

REFLECTORS

We provide the most cost-effective production solution for automotive lamp reflectors, and comply with tough industry standards.

The coating is state-of-the-art, high-quality aluminum protected by glass-like SiOₓ. The coating process is integrated with the plastic injection molding, using InlineCoater™ and PlastiCoater™ equipment, providing unprecedented quality control and cost reduction for automotive reflectors.

DECORATIVE

We have a long history providing the most cost-effective decorative coating solutions for high quality consumer products, including eyeglasses and watches.

ELECTRICAL CONNECTORS

We offer well-established processes for electrical connectors:

Silver MaxPhase™ produces a cost-effective thin silver alloy coating that can replace and in some cases even outperform traditional gold-plated connectors.

Ultra MaxPhase™ is used in solutions for extreme conditions such as sweet and salt water and high temperatures.

SEED LAYERS/METALLIZATION

Plastic metallization integrated with injection molding allows the plastic industry to eliminate the use of hexavalent chromium. A seed layer using PVD metallization replaces the first steps of the plating on plastic process, where the hexavalent chromium is used.

Moreover, the integrated PVD metallization by itself is superior for decorative plastic parts that are protected from wear, e.g. behind a screen on the dashboard.

Coating solutions for existing and future markets

Our clients sell products where surface functional characteristics play crucial role. We offer solutions to defined surface problems and provide cost-effective, integrated manufacturing solutions through flexible coating systems.
The Ceramic MaxPhase™ coating enhances performance and lifetime of metal bipolar plates in fuel cells. The PVD (physical vapor deposition) coating is proven state-of-the-art for both proton exchange membrane fuel cells (PEMFC) and direct methanol fuel cells (DMFC). Offering a unique combination of low contact resistance, high corrosion resistance, and low cost, it exceeds both performance and cost reduction targets set up by the US Department of Energy.

Ultra MaxPhase is a PVD contact coating for extreme wear, corrosion and heat conditions, where electroplated gold is not sufficient. Typical applications are connectors for sports equipment and for electronics in oil drilling and marine environments.

Silver MaxPhase is a low-cost and eco-friendly PVD contact coating developed for the connector industry. It combines low contact resistance with high environmental durability. This allows replacement of costly gold plating for various connector applications. The silver-based alloy also provides better electrical conductivity than electroplated gold.

In addition, Silver MaxPhase can be used as a conductive and solderable metallization on plastic components.

Our MaxPhase™ portfolio of coating processes creates unique performance advantages for high-tech products such as automotive fuel cells, electrical connectors and reflectors.
InlineCoater™ systems are used by customers around the world for decorative and functional coatings on metal, plastic and other materials. The unique load-lock and small chamber architecture provides coating quality and production stability not easily achieved on traditional PVD systems. Processes include magnetron sputtering, reactive sputtering, arc evaporation, HiPIMS and PECVD.

The small batch and short cycle system principle is well suited for lean-organized volume production, handling small loads at a very high throughput. Alternatively, the system can be equipped for maximum flexibility, allowing switch of application or process in seconds in high-mix PVD coating operations.

The PlastiCoater™ is optimized for plastic finishing in various applications, including decorative metalization, reflectors and EMI shielding. Sputtering of metals and metal alloys can be combined with plasma activation and passivation, as well as with PECVD plasma polymerization.

The compact and short-cycle PlastiCoater is closely integrated with injection moulding in automated production cells, which can also include UV lacquer coating. This Lean PVD™ plastic finishing is the most cost efficient metalization solution to replace hazardous chromium plating. It is an opportunity for plastic injection moulders to insource metalization and add value to moulded plastic products.