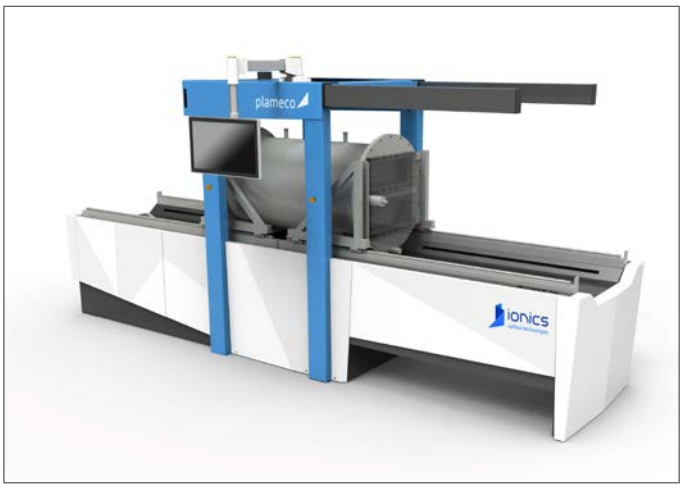
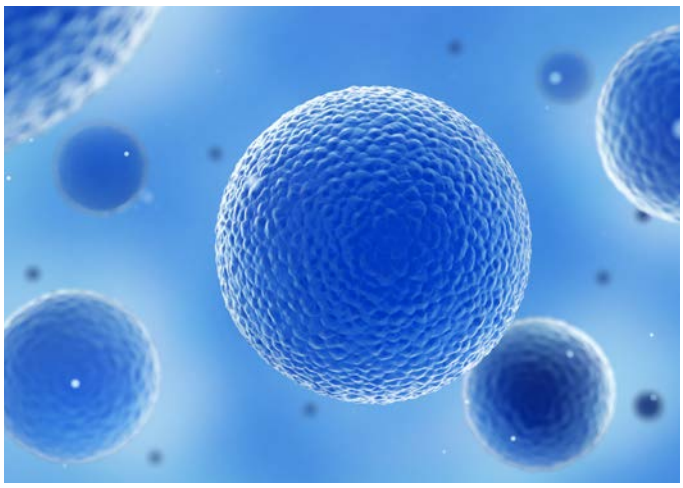
Powder and Particle Coating Technology

AGC Plasma Technology Solutions is collaborating with university laboratory for scaling thin film coating equipment and processes to create new core shell materials.
Powders and particles are used in a wide range of industrial applications like additive manufacturing (3-D printing), lithium battery technologies, pigments for dispersion in paints, filtration media, and jewelry production. The growing reliance on powder-based manufacturing is driving the need to enhance the properties of powders for better performance and manufacturability.

AGC Plasma Technology Solutions offers turnkey industrial solutions for vacuum coating of powders and particles with product design support, toll coating and complete equipment supply. Customized equipment designs from R&D to mass production scale enable efficient production of functionalized powder materials for a comprehensive array of applications. Powders can be treated by vacuum coating processes to improve laser energy absorption during Selective Laser Melting (SLM), enhance wettability and flowability, upgrade the decorative aspect (e.g. chrome-like appearance), or to decrease flammability.





BENEFITS

- Deposition of wide selection of metals, oxides, and nitrides onto many powders and particles substrate types
- Multiple coating technologies available to meet any production throughput requirement
- Proprietary mixing technology enables high-rate deposition onto 100% of particle surface area

Technical Specifications	
Coating technologies	Physical Vapor Deposition (PVD), Plasma Enhanced Chemical Vapor Deposition (PECVD)
Coating materials	Metals, oxides, nitrides, polymers
Powder substrate materials	Metals, ceramics, polymers
Particle sizes	1 µm – 100 µm
Coating thickness	1 nm – 100 nm

AGC Plasma Technology Solutions is the industrial coatings unit of the world's largest glass producer AGC Inc. (Asahi Glass Company) and a one-stop provider for plasma-based vacuum coating equipment. The group leverages decades of thin-film coating experience on large area glass products to innovate and develop new industrial solutions from proof-of-concept to mass production. AGC Plasma Technology Solutions operates R&D and production facilities across the US, EU, and APAC.

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