

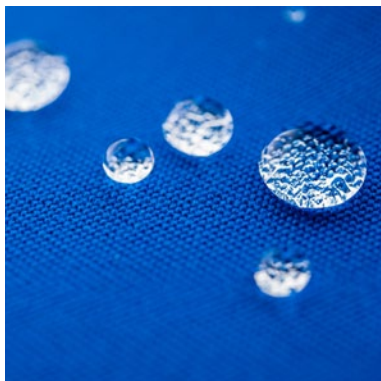


**AGC Plasma  
Technology Solutions**

Equipment & industrial processes  
for functionalization of textiles

**AGC**

Your Dreams, Our Challenge



Thanks to its unmatched expertise in plasma coating technology, AGC Plasma Technology Solutions is your partner of choice for providing the **equipment and industrial processes** for the functionalization of textiles.

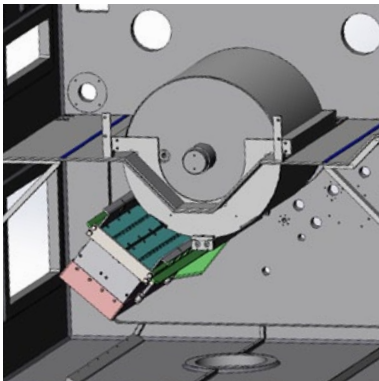
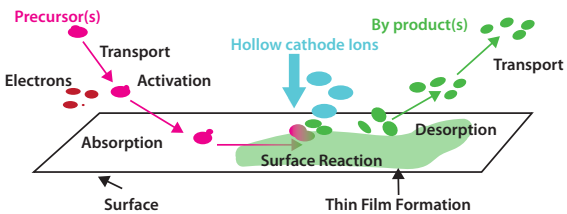
The **solution offered** enables:

- The **improvement of existing products' performance** and/or the creation of new products by depositing a very thin coating onto your textile
- **An energy efficient and environmental friendly process** without the need to use water or solvents. Our plasma technology offers a sustainable alternative to wet chemical based processes
- Reaching a **low cost of ownership** by the implementation of an efficient process using high deposition rate sources

# WHAT IS PECVD?

## Plasma-enhanced chemical vapor deposition

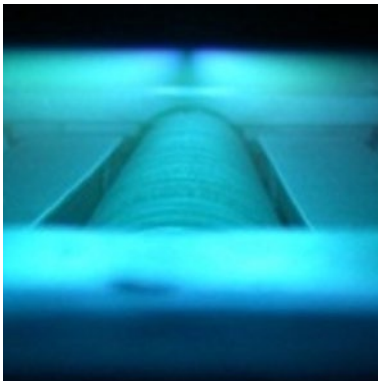
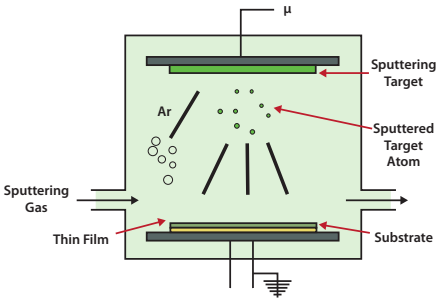
is a low pressure process used to deposit thin films from a gas state (vapor) to a solid state on a substrate. Chemical reactions are involved in the process, which occur after the injection of a reactant gas (precursor) into a plasma gas. The plasma is created by an AC or DC discharge between two electrodes. A high quality and low stress coating can be obtained at low temperature without the degradation of the (polymer) substrate material.



# WHAT IS PVD?

## Physical vapor deposition

is a physical process in which a solid material is brought into a vapor phase and is then back condensed as a thin film onto a substrate material. It is a low temperature process performed at low pressure. The processes are well established in, for example, the glass and semi conductor industry to deposit a wide variety of metallic or ceramic thin films.



# MAIN ADVANTAGES

## Eco-friendly process

The plasma processes of AGC enable to save huge amounts of water and energy compared to traditional wet processes, leading to a drastic reduction of your environmental footprint, by consuming the absolute minimum of chemicals and energy.

This process copes perfectly with current and future environmental regulations, ensuring that your production line will keep on being operational and won't need radical modifications at each new environmental restriction.

## Operational excellence

The industrial experience of AGC Plasma ensures a reliable production process with a high uptime and yield. The processes and equipment allow reaching a high throughput by coating with a speed higher than 10 meters per minute and attaining a uniform coating distribution for a substrate width up till 4 meters.

## Flexibility

The process developed by the experts from AGC Plasma will be applicable to different kind of textiles, based on your needs. The focus is currently on oil and water repellent functionalization, but other functionalizations can be explored to support our customers. The proof of concept can be realized by coating on your textile material in our demonstration lab in Lauenförde, Germany.

# WHO WE ARE

AGC Plasma Technology Solutions is a business unit within AGC Glass Europe SA, leader in the glass industry.

AGC Plasma Technology Solutions is a one-stop provider for vacuum plasma equipment. We are your partner for the development of new products, processes and production equipment. We support the customer for proof of concept and prototype realization in our demonstration lab in Lauenförde, Germany, and realize the design, plant construction, commissioning and production start-up of your PVD and PECVD coating equipment.

The focus is currently on water repellent and oleo-phobic functionalization of textiles, but development programs for anti-bacterial and infra-red protective coatings will be launched soon.