Steinhagen, September 7th, 2023

**Efficient Solution for Treating Plastic Surfaces**

Plasmatreat will present atmospheric-pressure plasma solutions at Interplas in Birmingham

**At the Interplas exhibition, which will take place from September 26th – 28th in Birmingham, Plasmatreat UK will focus on solutions for surface treatment with plasma technology in the plastics industry. At its booth H14 in hall 4 visitors can get insights in plasma technology theoretically and the Plasmatreat UK team will demonstrate practically how a plasma system works and is available for discussing various surface treatment applications.**

The Plasmatreat team wants to use their participation in Birmingham to present the Openair-Plasma technology and its various advantages to our British customers and interested people: Whether printing, painting, bonding or sealing is the next step in the plastics industry, Plasmatreat's Openair-Plasma technology is a reliable and clean alternative to conventional pretreatment methods. Plasma technology requires are virtually no chemicals, reduces effort, cycle times and costs, and makes long-lasting adhesive bonds possible. For reasons of productivity, cost, and the environment, companies are increasingly abandoning the use of chemical substances or “primers” as bonding agents. Pretreatment with Openair-Plasma from Plasmatreat increases the adhesion and wettability of surfaces, thus enabling the use of more cost-effective material alternatives and new types of material composites while maintaining the quality of the end products.

**Plasma treatment live at Interplas**

Customers and interested visitors are invited to stop by the Plasmatreat booth and see and experience the plasma effect: Plasmatreat has its so-called plasma live table at the booth: Using various test methods (e.g. water spray test, test inks or with the help of adhesive strips), the plasma experts will demonstrate the effectiveness of plasma treatment on site and make it visible, even with regard to materials that are difficult to process, such as PP and PE.

**Examples for using plasma in the industry**

Openair-Plasma is already successfully used in many industrial processes to apply coatings or to bond painted surfaces to achieve the required adhesion. This ability is often reduced by the addition of additives and requires environmentally harmful pre-treatment of the substrates (grinding, etching, sandblasting, flame treatment, etc.). In addition, solvent-based adhesion promoters (primers) are often used. These environmentally harmful processes can be replaced by an efficient and environmentally friendly pretreatment of the surface with Openair plasma.

Openair-Plasma is used not only for small components, but also for large components such as automotive dashboards: Pretreatment with plasma makes the non-polar (recycled) plastics receptive to subsequent bonding processes and ensures a strong bond between the different, sometimes even incompatible materials: for example, when laminating dashboards made of recycled materials with powder-sintered molded skins made of soft plastic. Traditional flame pre-treatment of dashboards can be completely eliminated by using Openair-Plasma, because the plasma jet is selective and, unlike flame, follows the component geometry with millimeter precision using automated robot technology. In addition, plasma treatment generates very little heat, so treated components remain dimensionally stable and can be further processed.

**High-tech Plasma Control Unit (PCU)**

For complete process control of plasma applications, the Plasma Control Unit (PCU) will be available at Interplas as well. It offers a wide range of control, regulation and monitoring functions. These include continuous optical monitoring of the plasma beam, motion control of the feed and rotation of the plasma nozzles, and control of the media supply, e.g. by continuously adjusting the flow rate of the process gas. In this way, the PCU provides reproducibility of the process-specific plasma characteristics to ensure consistently high quality of the treatment result. In addition, predictive maintenance data is continuously collected and evaluated.

**Visit Plasmatreat UK at booth H14 in hall 4 at Interplas.**

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***Info box:***

**How Openair-Plasma and PlasmaPlus optimize industrial processes.**

When plasma with its high energy level comes into contact with materials, it changes the surface properties, for example from hydrophobic to hydrophilic. Plasma technology requires only compressed air and electricity for operation. Fine cleaning with Openair-Plasma gently and reliably removes dust, release agents, additives, plasticizers and hydrocarbons from surfaces. Especially with non-polar plastics, plasma treatment achieves surface activation. It supports the increase of surface energy by introducing hydroxyl groups and thus improves adhesion in subsequent processes such as bonding, printing, painting and sealing. Plasmatreat's PlasmaPlus technology can also be used to create targeted functionalized surfaces with defined properties by applying (depositing) nanocoatings, e.g. as an additional adhesion promoter layer.

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**About Plasmatreat**

Plasmatreat is an international leader in the development and manufacture of atmospheric plasma systems for the pretreatment of substrate surfaces.

Whether plastic, metal, glass or paper – the industrial use of plasma technology modifies the properties of the surface in favor of the process requirements.

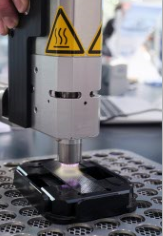
Openair-Plasma® technology is used in automated and continuous manufacturing processes in almost every industrial sector. Examples include the automotive, electronics, transportation, packaging, consumer goods and textile industry, but the technology, cost and environmental advantages of the plasma technology are used in medical technology and in the renewable energy sector as well.

The Plasmatreat Group has technology centers in Germany, USA, Canada, China, and Japan. With its worldwide sales and service network, the company is represented in more than 30 countries by subsidiaries and sales partners.

More information is available at: [www.plasmatreat.com](http://www.plasmatreat.com)

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**Image captions:**



Plasma technology is an efficient solution for treating substrates surfaces, e.g. to increase the bond of dissimilar polymers. (Copyright: Plasmatreat GmbH)