

# Simply glued, or stuck?

Successful bonding projects  
based on extensive expertise



(Bild: © fotolia\_nico99)

**ACROSS ALL INDUSTRIES BONDING TECHNOLOGY** – The successful use of these technologies requires a thorough and proficient understanding of the many aspects of the subject, and a systematic approach. When users get bogged down, many companies offer support – going well beyond their product range.



**Environmentally friendly pretreatment in lightweight automotive construction: Prior to bonding, a CFRP surface is cleaned to microfine level and activated with Openair-Plasma to ensure long-time stable adhesion** (Photo: Plasmatrete GmbH)

Nowadays, adhesive bonding technology plays a central role in many trending areas. As adhesive bonds becoming increasingly sophisticated in line with more exacting requirements, the importance of correctly pretreating adhesive surfaces has inevitably increased – for example, in lightweight construction (automotive industry, aerospace industry, transport, facade engineering), e-mobility (batteries, new electronic hybrid components) and with the use of new materials and composites. However, due to megatrends such as energy efficiency (solar technology, microelectronics, photovoltaics, LED production) and environmental protection (replacement of wet chemicals in the pretreatment process to reduce VOC emissions), requirements can often be met only when the right bonding technology is used.

*“Many adhesive bonds fail to achieve the required level of performance without the right pretreatment – regardless of the application.”*

– Dipl.-Ing. Christian Buske,  
CEO, Plasmatrete GmbH



Openair-Plasma technology enables the industry to directly address growing demands for efficiency in terms of both raw and semi-finished materials, energy conservation and the avoidance of harmful substances. With PlasmaPlus a specific functional coating to suit the application is deposited deep within the microstructure of the material surface. This produces highly effective layers which give the materials entirely new properties. Plasma-SealTight creates a strong, media-tight plastic-to-metal bond in the hybrid injection molding process.

The transfer of knowledge to users has always been a central aspect of these technologies. We do this in various ways, for example by supporting projects in our in-house technology center or those of our users, by collaborating with applied research institutes, as well as through events and our own technology seminars, etc. Technology aside, our ultimate aim with these projects is to provide a tailored range of services. So we work as a team with users to examine their individual process, analyze their production system and show them how the use of atmospheric pressure plasma can optimize the process by making it more environmentally friendly and cost-effective. Furthermore, we also offer plasma pretreatment and coating as a service to customers to give them a seamless introduction to the new technology.

#### Further Information

Plasmatrete GmbH  
[www.plasmatrete.de](http://www.plasmatrete.de)