

Plasma for a Flawless Paint Gradient

At this years PaintExpo, Plasmatreat will demonstrate live its high tech surface pretreatment method Openair®-Plasma, used to create the most important prerequisite for optimal wetting of paints and coatings in order to obtain an immaculate surface, long stable adhesion, thinner layer thicknesses and a perfect paint gradient.

Behind the large protective glass windows of the fully automated robotic cell, visitors will experience how the plasma beam impinges with almost sonic speed on the glass surface being treated, cleaning it to a microfine level and activating it at the same time. This step is followed by automatic water spraying. The effect becomes obvious immediately: Water drops on the untreated side compared to an absolutely homogeneous water film in the plasma-activated area. The high degree of water wettability is made possible by the strong activation effect of the plasma increasing the surface energy of the glass to over 72mJ/m².



Pretreatment with Openair®-Plasma causes a holohedral wettability of material surfaces. The straight line shows the plasma treated part of the substrate. (Foto: Plasmatreat)

A second demonstration will show the same basic principle on plastic material. This time the visitors are invited to conduct the test by themselves on a non robotic device.

About Openair® Plasma:

Openair®-Plasma works under normal ambient air conditions. The system is characterized by a threefold action: it highly activates surfaces by selective oxidation processes, discharges them at the same time and brings about microfine cleaning of the surfaces of metals, plastics, ceramics and glass. In addition, the plasma energy of this system is utilized for depositing layers. The jet systems employed can always be integrated in-line, that is to say integrated directly into new or already existing production lines.

The most important advantages of the method include its reliability and reproducibility in the automatic production process. Furthermore, the treatment leads to higher economic efficiency by comparison with conventional methods and all of this is done in perfect harmony with the environment.

About Plasmatreat:

Plasmatreat, the market leader in atmospheric plasma-jet technology, is a medium-sized globally acting enterprise with leading innovation engineering centers located in Germany, the United States, Canada, Japan and China as well as subsidiaries and sales offices in more than 20 countries. Plasmatreat's patented Openair® plasma technology is used in industrial production around the globe.

For further information, please visit www.plasmatreat.de or www.plasmatreat.com .

Exhibitor at the Paint Expo 2012, Karlsruhe, Germany (April 17-20, 2012)
Hall MKH1, Booth 1331