



APPLICATION INFORMATION

High-quality Packaging manufactured Professionally

Openair-Plasma® for improved adhesion in the cardboard packaging industry

The global trend towards higher-quality, premium cardboard packing solutions places a much greater importance on the quality standards of the adhesive surfaces. Openair-Plasma® is the solution for the pretreatment of adhesive surfaces in the folding box and packaging industry to enable the cost-effective bonding on laminated, metallic or coated surfaces. Adhesive surfaces and bondlines are cleaned and activated, thereby increasing the wettability to guarantee a durable long-term bonding result even at high production line speeds of up to 700 m/min.

Applications

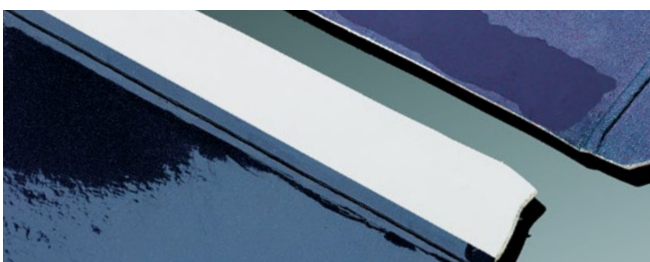
- Pre-gluing machines
(Longitudinal seal and crash lock bottom)
- Cigarette packaging machines
- Box erecting machines (boxes and trays)
- End-of-line packaging and cartoning machines

Improved process reliability:

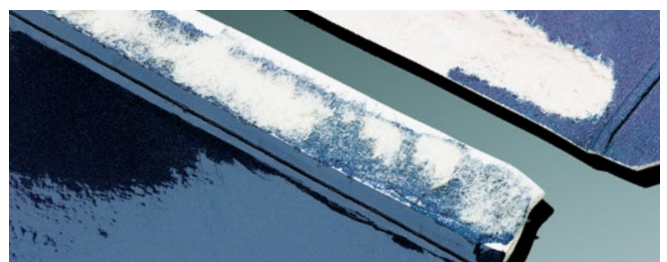
- Clean & activated adhesive surfaces
- Control and monitoring of the plasma process
- Collection of all relevant pretreatment parameters
- Transfer of parameters to the pre-gluing or packaging machine

Improved productivity & product quality:

- Reliable, long-term bonding performance
- Increased machine utilization and throughput
- Adhesive standardization is possible
- Reduced adhesive consumption
- In-line and off-line capability



Without pretreatment the adhesive detaches from the substrate (adhesive failure)



With Openair-Plasma® pretreatment a fibre tear can be observed (cohesive failure)

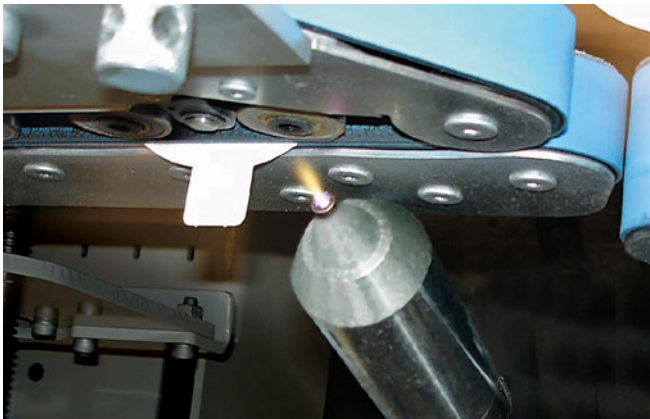
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Universal implementation for various packaging formats

Adhesive surfaces can be effectively pretreated with the Openair-Plasma® solution. This also applies to hard-to bond surfaces like laminated, metallic or coated materials in various formats.

The Openair-plasma® treatment principle

- Chemical-physical preparation of the adhesive surfaces prior to bonding
- Fine cleaning through removal of organic residues
- Increased surface tension > 72 mN/m
- No visible marks on treated surfaces



Longitudinal pre-gluing machine

Installation and retrofitting

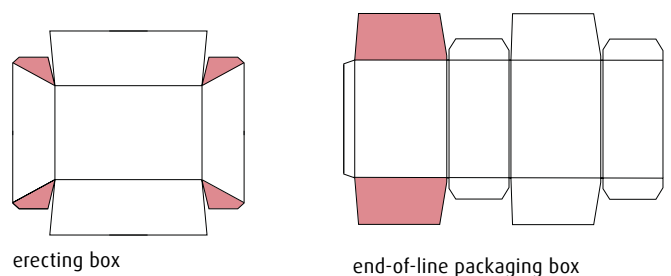
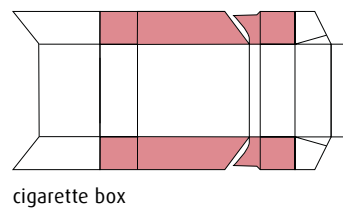
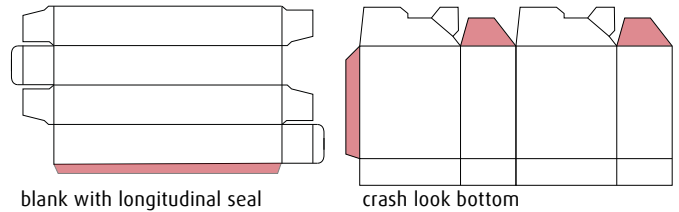
- Easy installation in new pre-gluing or packaging machines
- Easy retrofit in existing machines
- Integration of Openair-plasma® system before adhesive applicator (disc or jet systems)
- Easy electrical integration and interfacing

Packaging blanks

Through Openair-Plasma® the effective pretreatment of many different packaging blanks is possible. The pictures below show a few examples and the treatment areas are marked in red.

Packaging blanks with the following surfaces:

- OPP, PP, PE foils
- Metallic foils
- PE coatings
- Paint (UV paint)
- Impregnation



Environmentally friendly:

- lower emissions (reduced adhesive consumption)
- no thermal stress on treatment surfaces
- no dust generation
- no need for mechanical abrasion