

Plasma Treatment on Carton Folding

Today's carton packaging is made from sheets that are printed, finished, cut, and folded in a folding machine and usually glued by the manufacturer (pre-gluing). This is accomplished on high-performance pre-gluing machines with speeds up to 600 m/min. The glue that is used, cold glue, adheres without difficulty directly on bare paperboard material, but if that material already has a quality finish (such as a UV coating or laminated film), the places that will later be glued usually need to be roughened using an elaborate mechanical process (mechanical miller, sandpaper, brushes) in separate machinery. Otherwise, those spots must be masked before sealing. Integrating Plasma technology significantly simplifies the process. Plasma jets are installed directly in high-speed pre-gluing machines where they pretreat the folding carton in the glue seam areas. The resulting increase in surface tension is enough to dramatically increase adhesion capacity; the cold glue that is generally used bonds regardless of the coating, varnish or surface sealing.

Plasma technology to clean, etch and functionalize surfaces of folding cartons. These materials include:

- Polycoated, polybacked,
- Virgin kraft board,
- Specially coated materials,
- UV lacquered surfaces and recyclable materials.

Reduction in running costs

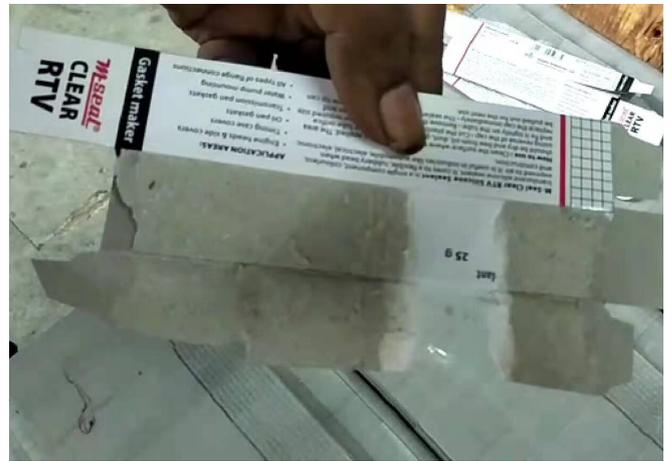
Eltech's Plasma treatment reduces running costs by making it possible to use standard water-based adhesives to glue packaging which has been laminated, metallised or printed UV on the carton face. Without plasma treatment, this type of packaging requires special and expensive hot melt adhesives or requires laquer cut-out in the glue flap. Another process frequently used on such packaging is mechanical milling, which is difficult and generates dust and inconvenience.

Advantages of Plasma Treatment for Carton folding

- The Plasma Curing System used for surface treatments of UV coated, laminated cartons ,met pet, varnished cartons for proper adhesion.
- It eliminates expensive process of spot coating.
- It eliminates use of grinders on folder gluer, which is a crude & process.
- The System is used on- line on folder gluer Up to speed of 600 m/min.
- It replaces use of hot melt glue application.
- It does not produce duct debris and keeps the environments clean.
- Increase the Line Speed, thus increases the Production
- Reduces Manufacturing Cost & most importantly &
- Improves the quality



Without Plasma Treatment



With Plasma Treatment

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Eltech is an innovative organization with a high level of know-how, continuously developing new Plasma and Corona equipment to help solving adhesion problems, and to meet high customer demands.

