

Improved surface adhesion for COC and COP Prefilled Syringes

The medical and pharmaceutical industry has shown an increasing tendency towards the use of plastic materials Cyclo Olefin Polymer (COP) and Cyclo Olefin Polymer Co. (COC) in the production of plastic Prefilled Syringes.

There are many advantages of using plastic Prefilled Syringes, such as:

- Breakage resistant
- Design flexibility
- Decreased surface reactivity
- Less absorption of the drug
- And lower cost options

The low surface energy of polymer-based substrates often leads to poor adhesion of inks and coatings. To obtain optimum adhesion, it is necessary to increase the surface energy of the substrate to just above that of the material to be applied. Surface treatment with corona results in improved surface adhesion properties.

Tantec has for many years produced and developed SyrinTEC equipment for the medical and pharmaceutical industry. SyrinTEC has been further developed for the Prefilled Syringes market based on demand and market needs.

SyrinTEC is specially designed for optimizing the adhesion properties before printing scale onto the syringe barrels and before coating the inside of the barrel with silicone. The uniqueness of Tantec SyrinTEC for Prefilled Syringes is that treatment on the outside and inside of the syringe is accomplished in one process.

SyrinTEC benefits:

- Non-contact treatment
- Treats 360°
- High line-speeds – keeps pace with any printing machine
- Fully integrated
- Different syringe sizes
- Complete process control
- Cost efficient
- Uniform treatment

SyrinTEC uses highly durable ceramic or metal electrode elements resulting in complete and uniform treatment of the syringe barrels. The SyrinTEC is available both as a standard unit in a low and high speed configuration for integration into existing printing lines and customized units are available for specific printing applications. For more information, visit: <http://tantec.com/corona-treatment-of-syringes-syrintec.html> or contact the sales department at Tantec:

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