

## 2D Plasma treater

Due to its energetic species and low temperature nature of plasma, Corona Plasma for Textile, provided by Adeeco, is suitable for processing of surfaces that are sensitive to heat especially the textiles. During surface processing, high level of surface activation is gained by formation of functionalized group on surface and roughness adjustment.

The roll to roll equipment can enhance the surface energy of any texture material in order to eliminate the water, paint and other chemical substance usage.

### Features:

- Capable of processing different surface including textile, polymer, metal films and ceramics and etc. up to 3 mm.
- Co-processing of 2 film surfaces
- Adjustable working width in relation to application up to 2.2 m
- Adjustable processing rate to 30 m/min for textiles and 100 m/min for polymers
- Capable of purging gas for processing

### Advantages:

- Enhancement of surface energy and hydrophobic property
- Non Invasive nature of plasma for textiles and polymers
- High rate processing of textile and polymers
- No need of expert operator or special tool
- Easy cleaning of equipment
- No need of resetting after electrode exchange
- Ability of different electrodes in one system.

#### **Application in Textile Industry:**

- Surface Activation: Free radicals formation and enhancement of chemical functionalization of surface / surface roughness modification
- Surface cleaning: Elimination of organic compound by plasma sputtering
- Hydrophobic enhancement for better wettability and tonality
- Hydrophobic enhancement for binding formation
- Improved waterproof and oil-proof properties of textiles
- De-starched process facilitation
- Surface pile yarns removal

#### **Advantages of Applied Plasma:**

- Sharp decline in water usage up to 80% and complete elimination in some of process applied on textiles
- Little wastewater formation and even complete elimination
- Stability Increment
- Declination in energy usage
- Decrease in human source
- Technology in accordance to environment

