

3. Principles to Plasma Surface Activation Treatment

3.1 Concepts of plasma activation process

Understanding of plasma activation processes

	Design Requirement	Laundry Process	Plasma Process
Materials	1	Water	Ar etc
	2	Detergent	O2, N2 etc
	3	Clothes	Fixture etc
System	3	Mechanical Energy (Rotation and Vibration) (Temperature)	Plasma Energy (E-Field and Wave) (Magnetic)
	4	Water, Dergent Energy	Ion, Electron Energy
Process	5	Washing	Etching/Activation
	6	Cleaning (Water Flow etc)	Cleaning (Ar Gas Flow etc)
	7	Dry(Air or Heat etc)	Dry(Vaporaization etc)

Plasma Process Design

Q1) Without Ar ?

Q2) Without O2 or N2 ?

Q3) Material properties?

Q4) Plasma Energy ?

Q5) How much cleaning ?

Q6) How much residue?