

Atmospheric Plasma Surface Treating Comparison Chart

Air Plasma



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By creating an electrical ionization of air, air plasma emits ions and free electrons to remove low energy surface atoms. While vaporizing inert contaminants and residues, air plasma also deposits reactive oxygen species (ROS) to the surface.

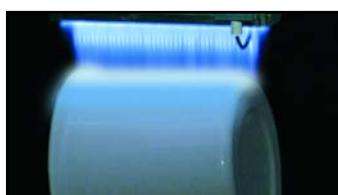
Advantages

- Low capital cost
- Easy operation
- Simple maintenance
- Low operation costs

Considerations

- Depth of treatment limited

Flame Plasma



Flame ionization of hydrocarbon gas forms reactive species, increasing electron density and distribution to the surface, while polar functional groups and oxidation enhance to the surface.

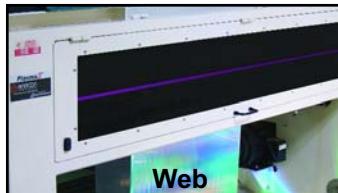
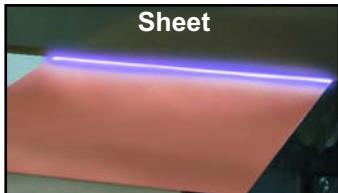
Advantages

- High treatment levels
- Uniform treatment
- High-velocity output
- High line speeds
- Long treatment life

Considerations

- Flash off surface debris
- Available in any width
- Treats varying geometries and depths
- Not suitable for all heat sensitive products
- May not be suitable for low line speeds

Variable Chemistry Plasma



The electrical ionization of various gases create a uniform stream of ionized gas. High density plasma promotes surface cleaning, etching, crosslinking, and deposition.

Advantages

- Low temp. treatment
- Treats difficult materials
- Long treatment life
- Low to high line speeds
- High treatment levels
- Uniform treatment
- Variable application specific chemistry

Considerations

- Operational costs dependent on application
- Depth of treatment limited





enercon

Atmospheric Plasma Technology

Air Plasma



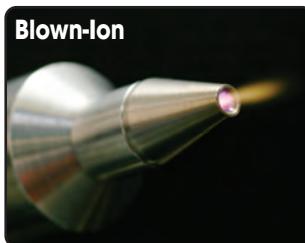
Blown-Arc Air Plasma
enercon 3-D surface treating



Dyne-A-Mite™



Dyne-A-Mite™ HP



Blown-Ion



Dyne-A-Mite™ IT



Dyne-A-Mite™ IT Elite

Variable Chemistry



Dyne-A-Mite™ VCP



Plasma3™ VCP



Plasma3™ VCP

Flame Plasma



Dyne-A-Flame™



Dyne-A-Flame™



Untreated

Treated

Determine which technology is best for your application. Contact us to schedule a free laboratory trial.

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