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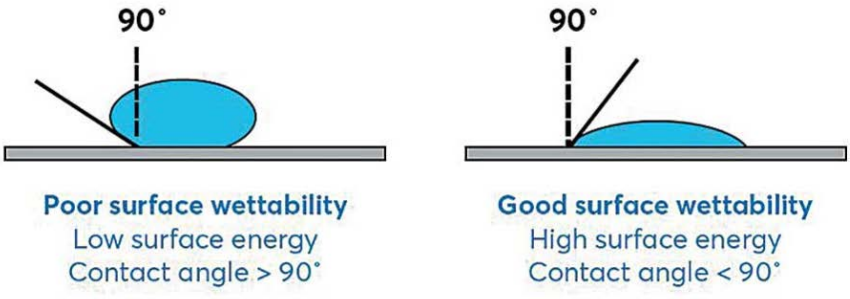
Surface Activation of Growth Area of TPP-Products

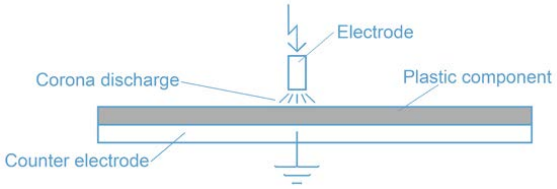
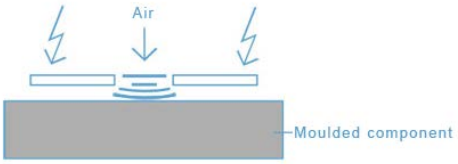
The hydrophobic character of untreated plastic is unsuitable for the common adherent cell culture applications. An activation of the surface is necessary to offer adherent cells a charged, wettable surface, which enables attachment and proliferation.



➔ A smaller contact angle is better for the cell adhesion.

Two basic traditional treatments are available on the market for the modification of the hydrophobic polystyrene surface to a hydrophilic negative and/or positive charge growth area:

1. Corona discharge treatment under atmospheric conditions
2. Plasma treatment under vacuum.

Corona Discharge Treatment	Plasma Treatment Technology.
	

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Surface Treatment of TPP Growth Areas

TPP uses a corona discharge treatment further developed „made by Tanner“: Expertise of the surface treatment + Expertise of established treatment methods = TPP-formula of success

Important:

- Long-term stable, reproducible values since 1991
- Smallest lot to lot variability
- Properties continually blind tested
- Mirror finish of mold
- Optimal process combination (material, pressure, time, distance, speed)
- In-line production
- Selective treatment (e.g. on spherical zones in 96-w U plates only)
- No clouding of the crystal clear surface
- High reproducibility

Quality control:

- Regular controls with L929 mouse fibroblasts conforming to DIN EN ISO 10993-1, USP 27
- Result: rising proliferation rate
- Blind test: products with various surface treatments

What lowers the quality of surface treated products:

- Time (Expiry date administration = important: FIFO)
- Exposure to direct sunlight
- Opened product bags
- Exceeding optimal relative humidity in storage room of 50 – 60 %
- Deviation of the optimal storage temperatures of 10 – 30 °C
- Brisk changes in temperature
- List not complete, there are many other factors, outside TPP’s control

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NB: TPP surface treatment is **not** a coating.