

To achieve ideal ink adhesion

In pad printing, surface tension on a substrate is the most crucial factor in achieving good ink adhesion. Substrates with low surface tension suffer from poor ink adhesion, for example: PP, PE or metal. Substrates with high surface tension achieve good ink adhesion and printability,



How to increase surface tension ?

The 2 most common treatments

1. Flame treatment: apply a high energy flame to print surface.
 2. Corona treatment: apply a concentrated electrical energy to increase tension.
- Both treatments take a few seconds only.



Flame Treatment



Corona Treatment

How to determine surface tension ?

By KENT's Surface Tension Testing Pen. Standard levels include : 36, 42, 50 and 56 mN/m.

- Apply fluid of the required tension value to the treated surface.
- If fluid forms a flat film and holds for 4 seconds, it indicates tension is achieved to that particular value. If not, fluid will separate into droplets.
- A higher or lower value fluid can then be tested on the surface until the correct value is found.

Higher the tension value, better the ink adhesion.

