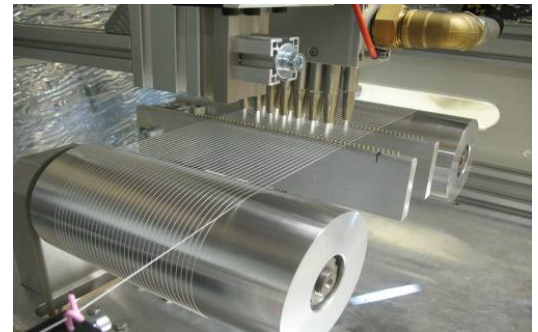


Smart textile treatment

Multitool for textile innovations at atmospheric pressure

Transfer offer

Textiles, especially those for the automotive sector, are often provided with a stain protection coating. As a result, liquids roll off the textile surface, they soil less or are easier to clean. However, this finish also makes the textiles difficult to laminate (stick). With an appropriate surface treatment using atmospheric-pressure plasma or flame treatment, the substrates can be both de-coated and re-functionalised.



Yarn treatment using plasma jets

Solution

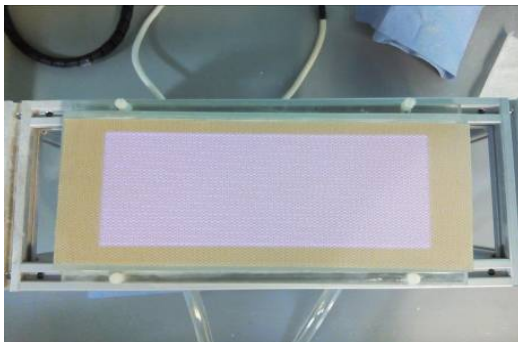
Using the existing plasma and flame technologies, the treatment of temperature-sensitive materials, such as textiles or plastics, can be carried out. Thereby textile surfaces can be

- activated (preparation for subsequent treatments),
- desized (removal of existing coatings) or
- functionalized by new coatings on the nanometer scale.

The nanocoatings can feature different functionalities. From antibacterial effects to improved wettability, e.g. for printing or bonding, far-reaching property changes are possible. Thus an adaptation to the respective application is realizable.



Yarn treatment using flame treatment



One-sided treatment of textiles



Adjustment on the wetting behaviour

Advantages

- **Thermally sensitive materials can be treated**
- **One-sided functionalization is possible**
- **Properties of the untreated side (e.g. anti-soiling finish) are retained**
- **Functionalization is adjustable, depending on the desired application (wetting, adhesion improvement, antimicrobial properties etc.)**



Improvement of the adhesive bonding

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