

Characterisation of Surface-Liquids Interaction in Textile Materials

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Abstract

Interaction of textile materials with liquids is very important to predict products behavior in different situations going from processing to use conditions, such as aqueous and dry cleaning, tendency to soiling, absorption of sweat, penetration of treatment products, dyeing baths and printing pastes.

Cotton hydrophilic and hydrophobic surfaces are analyzed in order to compare the more important types of cotton substrates and illustrate different processing phases and final products: raw, desized, bleached, softened, printed and resin finished materials.

Surface modifications were induced by changing the type of products applied in finishing treatments, namely different types of softeners, resins and printing pastes and by CORONA irradiation of these substrates. Energetic superficial changes and its influence over wettability behavior, either for hydrophilic or hydrophobic cases, were evaluated.