



Application of Multi-function thickener from Chitosan/ Starch blend in textile Pigment Printing

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Abstract : Multi-functional finishing of textiles using chitosan is gaining more and more interest contributes to its antimicrobial properties and enhancement of fabric colour strength. This paper aims to produce a multi-functional thickener via adding of chitosan to gelatinous starch that it act as antibacterial agent, binder, and improve the pigment printing properties of different fabrics. The used chitosan was extracted from Egyptian marine shrimp shell and characterized by IR, ¹H-NMR and X-ray powder diffraction. The blends were prepared by adding fixed ratios of Chitosan to all the gelatinized starch samples. Different fabrics (natural, blend and synthetic) were printed by screen printing technique. For the comparison another samples were printed using the traditional printing paste which contain commercial binder. Generally, the data showed that the printed samples using starch /chitosan blends either in a ratio of 5% or 6% achieved improvement in the colour strength and related colour parameters are higher than those printed using the traditional pigment printing paste with good to excellent fastness properties.

Keywords: pigment printing, multifunctional thickener , chitosan /starch blend.