

Printing cotton fabrics with creative designs using printing pastes of different rheological properties

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Abstract

The main idea of the present study is to investigate the role of rheology in the printing process and how it affects the design lines and areas through applying two different thickeners, Sodume alginate and Carboxymethyl cellulose, which have different rheological properties to cotton fabrics using two classes of reactive dyes. Different concentrations of these thickeners were prepared and applied to cotton fabrics using manual silk screen printing. (4%) Sodume alginate was the best concentration to obtain high levels of K/S. Sodume alginate has a pseudoplastic behaviour while CMC has a thixotropic one. Some Creative designs were printed using 4% Sodume alginate through manual silk screen printing.