

ALOE VERA AS AN ALTERNATIVE NATURAL
THICKENING AGENT IN THE REACTIVE DYE
PRINTING

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ABSTRACT

ALOE VERA AS AN ALTERNATIVE NATURAL THICKENING AGENT IN THE REACTIVE DYE PRINTING

In this study an alternative natural thickening agent based on aloe vera gel was applied onto 100% cotton fabric and 100% silk fabric by screen printing technique using five type formulations of stock thickener. The formulations of stock thickener that were used are 100% aloe vera gel, 100% sodium alginate, 25% aloe vera gel: 75% sodium alginate, 50% aloe vera gel: 50% sodium alginate and 75% aloe vera gel: 25% sodium alginate. Preliminary studies conducted on using 100 % aloe vera gel produced poor printing result. Thus, this formulation was omitted and only four types formulation of stock thickener were selected. The printed fabric was evaluated based on the colour, sharpness and colourfastness properties. Results show that stock thickener using 25% aloe vera gel: 75% sodium alginate produced a good level of sharpness on the printed cotton fabric and moderate sharpness on the printed silk fabric. While, the sharpness of the design for stock thickener using 75% aloe vera gel: 25% sodium alginate on the printed cotton and silk fabric was poor. The result also showed that higher amount of the aloe vera gel component, lower the viscosity of the paste which results in a poor sharpness of the print. Overall, these thickeners have no significant influence on the colourfastness properties.

Keyword: Aloe vera gel, Printing, Thickening agent