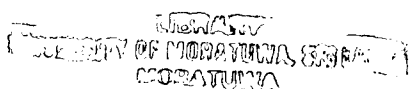


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EFFECT OF SOFTENERS ON COLOUR FASTNESS OF REACTIVE DYES

D S FERNANDO



A dissertation submitted to the Department of
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DECLARATION

The work presented in the dissertation in part or whole, has not been submitted for any other academic qualification at any institution.

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ABSTRACT

This research project is primarily aimed to study the influence of softeners on colour fastness and shade variation of cotton fabric dyed with bi-functional reactive dyes. The commercial dyes selected for the study contained, both the fluoro triazine and vinyl sulphone reactive groups, in the same molecule. Four different shades of the CIBACRON FN reactive series were applied on 100% cotton knitted fabric by exhaustion method. Each fabric piece dyed was subsequently subject to the treatment by a softener. This was followed by the assessment of colour fastness ratings for washing, light and Rubbing. Light fastness was assessed subjectively with the blue wool standard and is further confirmed objectively with the help of the spectrophotometer. The fastness ratings were compared with the softener-free samples of the same shade.

This study has revealed that the treatment with softeners has resulted in a general improvement in wash and light fastness properties. Polyethylene emulsion has adversely affected washfastness irrespective of the shade. A significant reduction in the light fastness was evident when treated with cationic softeners. The dye, CIBACRON BRILLIANT BLUE FN-G has shown peculiar reduction in light fastness following treatment with all types of softeners. In addition to the above, certain other trends and patterns have also been noticed when analyzing the data collected.

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