

ABSTRACT

The demand for healthy lifestyles and comfort drives many researchers to explore newer technique to impart functional properties in textiles. In the present work an attempt has been made to provide UV-resist and anti soil release properties for use in the clothing of outdoor workers. For UV-resist property, commercial UV absorber and natural colourant were taken and commercial soil-release and CMC were used as soil-release finishes. To estimate the performance of each finish on the fabric, these finishes were applied separately with different concentrations and add-ons. It was found that the commercial UV absorber 1% add-on gave similar results as compared to 3% add-on and in case of natural colourant 4% shade gave better results than 2% shade. It was also observed that natural colourant gave better results as compared to commercial UV absorber. In the case of soil-release finishes, CMC treated cotton at 3% add-on gave better results. Polyester plain and twill weave fabrics showed better result with commercial soil-release finishes. However polyester/cotton blend fabric gave similar results with both the finishes i.e. commercial soil-release finishes and CMC. Polyester/Cotton blend plain and twill weave fabrics gave good results with both the soil-release finishes i.e. commercial soil-release finish and CMC at both the add-on. After analysis of results four optimum combination were purposively selected and applied on Polyester/Cotton blend. The combinations were with lower add-on's as when two finishing treatments were to be given together the higher add-on's would increase the weight of the fabrics under study. Both chemicals were applied sequentially onto the fabrics. The combination of natural colourant with CMC showed good UV resistance and soil release properties without altering the wear properties of the fabrics as compared to other combinations; they were effective and compatible with each other.