

Impact of Sericin Treatment on Perfection Dyeing of Polyester Viscose Blend

Authors : Omaima G. Allam, O. A. Hakeim, K. Haggag, N. S. Elshemy

Abstract : In the midst of the two decades the use of microwave dielectric warming in the field of science has transformed into a powerful methodology to redesign compound procedures. The potential benefit of the application of these modern methods of treatment emphasize so as to reach to optimum treatment conditions and the best results, especially hydrophobicity, moisture content and increase dyeing processing while maintaining the physical and chemical properties of each textile. Moreover, polyester fibres are sometimes spun together with natural fibres to produce a cloth with blended properties. So that at the present task, the polyester/viscose mix fabrics (60 /40) were pretreated with 4 g/l of KOH for 2 min in microwave irradiation with a liquor ratio 1:25. Subsequently fabrics were inundated with different concentrations of sericin (10, 30, 50 g/l). Treated fabrics were coloured with the commercial dyes samples: Reactive Red 84(Dye 1). C. I. Acid Blue 203(Dye 2) and C.I. Reactive violet 5 (Dye 3). Colour value was specified as well as fastness properties. Likewise, the physical properties of untreated and treated fabrics such as moisture content %, tensile strength, elongation % and were evaluated. The untreated and treated fabrics are described by infrared spectroscopy (FTIR) and scanning electron microscopy.

Keywords : polyester viscose blends fabric, sericin, dyes, colour value

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020