

Investigation of Moisture Management Properties of Cotton and Blended Knitted Fabrics

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Abstract : The main idea of this work is to investigate the effect of knitted fabrics characteristics on moisture management properties. Wetting and transport properties of single jersey, Rib 1&1 and English Rib fabrics made out of cotton and blended Cotton/Polyester yarns were studied. The dynamic water sorption of fabrics was investigated under same isothermal and terrestrial conditions at $20\pm 2^{\circ}\text{C}$ - $65\pm 2\%$ by using the Moisture Management Tester (MMT) which can be used to quantitatively measure liquid moisture transfer in one step in a fabric in multi directions: Absorption rate, moisture absorbing time of the fabric's inner and outer surfaces, one-way transportation capability, the spreading/drying rate, the speed of liquid moisture spreading on fabric's inner and outer surfaces are measured, recorded and discussed. The results show that fabric's composition and knit's structure have a significant influence on those phenomena.

Keywords : knitted fabrics characteristics, moisture management properties, multi directions, the moisture management tester

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