



Comfort properties of some cellulosic fabrics

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Abstract : Thermal insulation, water vapour permeability, and air permeability were measured for three types of single jersey knitted fabrics, knitted at three different tightness factors on two single jersey knitting machines with two gauges. Fabrics were knitted from yarns with 30 Ne with the following fiber contents (100% cotton, 50% viscose / 50% cotton, 50% modal / 50% cotton). It was found that Modal/Cotton fabric gives higher air permeability, water vapour evaporation, and lower thermal resistance then comes 100% Cotton fabric then Viscose/Cotton fabric. Also it was found that fabric porosity is highly correlated with Thermal resistance, Air permeability, and Water vapour permeability for all fabrics under study. While fabric thickness affects significantly the properties under study for cotton, and modal/cotton fabrics. Also the loop length affects the comfort properties.

Keywords: Cellulosic fabrics, Modal Cotton blends, Viscose Cotton blends, Thermal resistance, Air permeability, Water vapour permeability

Shawky M. and Darwish H.M /International Journal of ChemTech Research, 2016,9(12): 266-276.
