

- The introduction of higher weft yarn count significantly increased the thermal resistance and, consequently, contributed to the improved performance of this fabric for summer clothing.
- The results confirmed that waterproof and oilproof finishing significantly affect thermal diffusivity, thermal absorptivity and thermal resistance.
- Oilproof and waterproof finishing increased the values of thermal absorptivity, which consequently lowered the warm feeling of the fabric and decreased its performance for winter clothing. It was found that oilproof and waterproof finishing decreased the thermal diffusivity of the fabric by 6.9%.
- The fabric with milled finishing obtained the highest value of thermal resistance, which favours it for application in winter clothing. Compared to similar standard finished fabrics, the milled finished fabrics obtained 56-57% higher thermal diffusivity and 30% lower thermal absorptivity.



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Institute of Textile Engineering and Polymer Materials



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