

**THERMAL INSULATION PROPERTIES OF NONWOVEN SEMI-DISPOSABLE BLANKETS
FROM RECYCLED POLYESTER/COTTON FIBERS**

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Recycled polyester fibers and cotton fibers that require no chemical processing were used to produce a low-cost, semi-durable, nonwoven thermal blanket. Thermal blankets were given carboxylic acid finish to improve structural stability during use and laundering. A Steady-State Heat Flow meter FOX 200, designed and manufactured by LaserComp Corporation was used for measurement of thermal conductivity and thermal transmittance of samples of nonwoven blankets. The comparison of the thermal insulation properties of the studied blanket material with data for commercially available blankets showed that cotton/polyester blankets provide on average 20-30% better protection against heat loss. Overall these “environmentally improved” nonwoven blanket fabrics had a good hand, excellent thermal and comfort qualities, thus can be an economically viable product.