DETERMINATION OF FABRIC THERMAL VALUES FOR WOMEN FABRIC MADE OF POLYESTER AND COTTON FIBERS

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CHAPTER 1

INTRODUCTION

1.0 Background of the study

People wear clothing because it is a part of human basic needs. It gives protection to the wearer and most importantly to keep warm and comfortable. As time passes, people become aware that clothing needs to have additional features in order to keep them comfortable when wearing clothing. For example, people require clothing should have good physical characteristic such as weight, thickness, bulkiness and stiffness. Also fabric or clothing is expected to have better breathable, thermal comfort, smooth surface and durability. Additionally people would expect clothing to have a smooth surface fabric in order to prevent any discomfort toward skin such as irritation. Breathable characteristic in clothing is also expected as it makes wearer feel more comfortable when wearing the clothing. Huge demands in textile tactile properties lead to tremendous research in fabric mechanical properties and comfort performance. One of the significant areas in fabric comfort is fabric thermal properties. Thermal comforts are applied to measure the relationship of thermal influence upon man at work, leisure, and during a critical situation.

Thermal comfort has been defined as "that condition of mind which expresses satisfaction with the thermal environment" by Fanger which provides a sufficiently broad discussion of this topic in his book [1]. He points out that, because of the biological variations of people, the aim is to create optimal thermal comfort by which the highest