

Air permeability of some inner wears with quick dry function

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Abstract

Air permeability is a critical factor in determining wearer's comfort behaviour especially for inner wear with quick dry function. This paper is aimed to study aims the air permeability of some inner wears with quick dry function available in local market. Three products from different sources (Brand A: online brand; Brand B: youth market and Brand C: general market) were obtained and their air permeability were determined by an automatic air permeability tester. Experimental results found that Brand B product was the optimal choice in terms of air permeability.

Keywords: air permeability, quick dry, inner wear, wearer, comfort

Content:

Sweating is occurring in summer weather and the case in Hong Kong is very common due to very humid and relatively high temperature. The sweating can help regulating the human body temperature. However, sweat cannot be evaporated quickly under humid condition and stayed on the inner wear and skin. The excess heat needs to be transferred away from the skin to maintain healthy body temperature. Cooling is hence of high importance to avoid heat stroke.

Air permeability is a critical parameter in determining the quick dry property of inner wear. Nowadays, there are quite a lot of quick dry inner wears available in the market. The present study aims to investigate the quick dry performance of such products in Hong Kong market by comparing their air permeability properties of three common commercial inner wears (Brand A: online brand; Brand B: youth market and Brand C: general market).

Air permeability results

Brand	Mean of air permeability (KPa.s/m)	Standard deviation
A	0.09	0.013
B	0.05	0.0075
C	0.12	0.022

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