

Water vapour transmission of some inner wears with quick dry function

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Abstract

Other than wicking behaviour, water vapour transmission is an important factor in determining the quick dry property of a product. In the market, many inner wears claimed to have quick dry function. This study is aimed to examine the water vapour transmission of some inner wears available in local market. Three products from different sources: Brand A: online brand; Brand B: general market and Brand C: youth market were evaluated by simulating of water vapour (sweat) transmission from skin surface to outer fabric surface. It was found that Brand B product was the optimal choice in terms of water vapour transmission.

Keyword: water vapour transmission, wicking, inner wear, sweat, comfort

Content:

Humid and relatively high temperature is a common weather feature in Hong Kong during summer. The sweating would influence the comfort properties of a garment during wear because the fabric is difficult to dry in a short period of time. The moisture trapped in the fabric may cause health effect to the wearer and also affect the body temperature regulation. Therefore, quick dry garments are launched to the market.

In the quick dry products, the water vapour transmission (WVT) 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 on the market. The present study aims to investigate the quick dry performance of such products in Hong Kong market by comparing the WVT properties of three common commercial women's quick dry inner wears for different market position (Brand A: online brand; Brand B: general market and Brand C: youth market).

Results of water vapour transmission.

Brand	Weight (g)	Weight after 24h(g)	Mean weight change (g)	WVT (g/h•m ²)
A	85.65	81.8	3.59	49.55
	80.1	76.77		
B	81.37	77.59	3.79	52.24
	82.03	78.24		
C	84.26	80.08	4.05	55.90
	85.92	82		

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