メチルハイドロジエンポリシロキサン処理による綿平織布間の静摩擦力の変化について

Effects of Finishing with Polymethylhydrogensiloxane on the Fabric-to-Fabric Static Frictional Force of Plain Weave Cotton Fabrics.

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Abstract

The static frictional force between two specimens of the same fabric finished with polymethylhydrogensiloxane (MHPS) was determined to investigate the effect of MHPS on the surface property of fabrics. Plain weave cotton fabrics were treated with MHPS methylene chloride solutions at six different concentrations and then cured.

The static frictional force at the first frictional cycle decreased monotonously with increasing MHPS concentration to 5 wt%. By contrast the polydimethylsiloxane (DMPS) gave the plateau at the region of above 0.5wt% as reported in the previous paper. It was concluded that this difference was due to the formation of three-dimensionally networked film of MHPS after curing. Furthermore, the ratio of static frictional force at n-th (n=2,4,6,8, and 10) frictional cycle to that at the first frictional cycle decreased with increasing MHPS concentration.

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