

NEW UNDERSTANDING ON THE RELATIONSHIP BETWEEN BASIC SUGARS AND MVTR IN COTTON FABRICS**Arvind Purushothaman****Gopal Coimbatore****Nonwovens and Advanced Materials Laboratory****The Institute of Environmental and Human Health****Texas Tech University****Lubbock, TX****Kater Hake****Cotton Incorporated****Cary, NC****Siva Parameswaran****Department of Mechanical Engineering****Texas Tech University****Lubbock, TX****Seshadri Ramkumar*****Nonwovens and Advanced Materials Laboratory****The Institute of Environmental and Human Health****Texas Tech University****Lubbock, TX****Abstract**

Cotton is pre-sold to the consumers based on its comfort value. There is plethora of information and literature available on the relationship between fiber characteristics, fabric construction and finishes on the comfort of fabrics as reflected in their Moisture Vapor Transport Rate (MVTR) data. A recent study at Texas Tech University has shown that some basic sugars that make up cotton may have influence on the MVTR values. This presentation will feature the contribution of sugars such as sucrose, ribose, M-3a, AN- β , AN-6, etc. on MVTR of knitted values. To our knowledge, the correlation between the aforementioned sugars and the comfort which is the important property of cotton has not been heretofore reported.

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