

AATCC APPROVES TM 195 LIQUID MOISTURE MANAGEMENT PROPERTIES OF POROUS MATERIALS

What is MMF? Moisture Management Fabric (MMF) is a textile which has a specially designed structure on two surfaces, with which the fabric is able to transfer liquid water from inner surface to outer surface (one direction) and keep the inner surface dry. The hygroscopic ability of MMF can keep the wearer comfortable. This is one of the key performance criteria for the modern sportswear industry.

HOW TO IDENTIFY LIQUID MOISTURE MANAGEMENT PROPERTIES OF TEXTILE FABRICS?

AATCC has officially announced the approval of Test Method 195: Liquid Moisture Management Properties of Porous Materials.

This test method is a procedure for the measurement, evaluation and classification of liquid moisture management properties of textile fabrics. It is suitable for measuring the performance of knitted, woven, and non woven fabrics. It provides objective measurements of some liquid moisture management properties of textile fabrics.

The results obtained with this test method are based on water resistance, water repellency and water absorption characteristics of the fabric structure, including the fabrics' geometric and internal structure and the wicking characteristics of its fibers and yarns.

The test method is most applicable to the evaluation of fabrics in garments or textile products as they would be exposed to liquid moisture (e.g. perspiration) present on the surface of human skin.





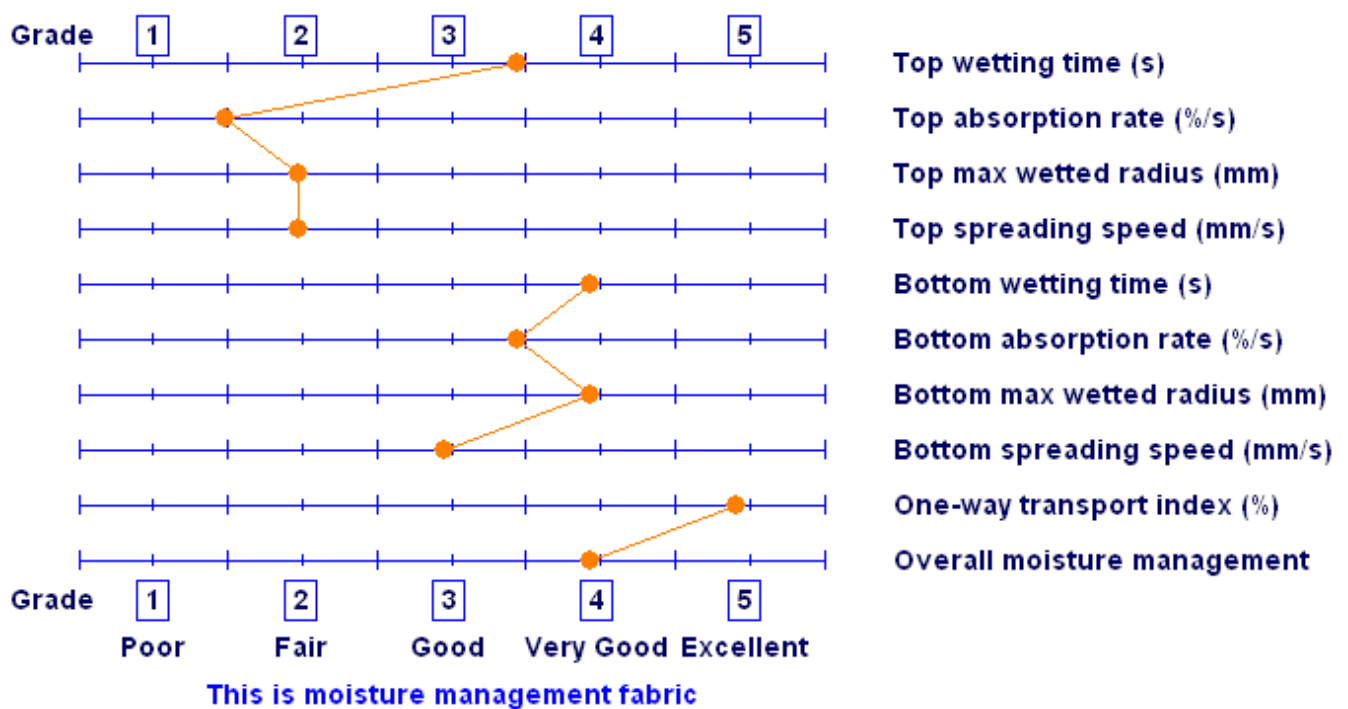
Ten moisture management indices can be used to characterize the moisture management properties of a fabric:

1. Wetting time top
2. Wetting time bottom
3. Top absorption rate
4. Bottom absorption rate
5. Top maximum wetted radius
6. Bottom maximum wetted radius
7. Top spreading speed
8. Bottom spreading speed
9. Accumulative one-way transport index
10. Overall moisture management capability (OMMC)

A grading scale of 1-5 will be used to assess the performance of the fabric based on the above indices, where Grade 1 is poor and Grade 5 is excellent.

Finger Print of Moisture Management Properties

(Average for Fabric)



CLASSIFICATION OF FABRIC

Fabrics can be classified into different functional types of fabrics using to their moisture management properties.

Liquid Moisture Management Term	Description
Waterproof fabric	Fabrics which have the properties that liquid water can not transfer from the fabric outer surface to the fabric inner (next to the skin) surface and can only spread on the fabric outer surface
Water repellent fabric	Fabrics which have the properties that liquid water can not spread on both outer and inner surfaces of fabric but will penetrate through the fabric under external forces
Slow absorbing and slow drying fabric *	Fabrics which have the properties of slow absorbing and slow spreading of liquid water on both outer and inner surfaces of fabric
Fast absorbing and slow drying fabric *	Fabrics which have the properties of medium to fast absorbing of liquid water and slow spreading of liquid water on both inner and outer surfaces of fabric
Fast absorbing and quick drying fabric *	Fabrics which have the properties of medium to fast absorbing and fast spreading of liquid water
Water penetrating fabric	Fabrics which have the properties that liquid water can directly penetrate through the fabric
Liquid Moisture Management fabric	Fabric which has the properties that the majority of liquid water transfers from the fabric bottom surface to the fabric top surface and spreads across a large area of the top surface

* This test method does not measure drying performance directly. Drying performance is inferred based on the area of liquid moisture spreading.

For any enquiry, please do not hesitate to contact us.



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