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NEW AATCC TEST METHODS FOR DRYING RATE OF TEXTILE FABRICS

There is a growing market demand for sportswear with moisture management properties. Quick dry and fast wicking functions are key features of moisture management fabric. The drying rate of fabric demonstrates the overall effectiveness of sweat removal by evaporation. A slow drying fabric could adversely affect the thermal comfort of a highly active wearer who sweats excessively. Measurement of drying rate has become one of the important tests for studying the performance of moisture management fabrics.

The American Association of Textile Chemists and Colorists (AATCC) has developed and approved two new test methods for evaluating drying rates of fabrics. The drying performance of fabric can be analyzed by the following [new methods](#).

- AATCC Test Method 200-2013, Drying Rate of Textiles at their Absorbent Capacity: Air Flow method
- AATCC Test Method 201-2013, Drying Rate of Fabrics: Heated Plate Method

These new test methods simulate actual wearing conditions in which the fabric would be exposed to air flow and in contact with skin.



COMPARISON OF DRYING RATE TESTS

TEST STANDARD	AATCC TM 200 AIR FLOW METHOD	AATCC TM 201 HEATED PLATE METHOD
Test scope	The test is used to determine the drying rate of textiles at their absorbent capacity under air flow conditions.	The test is used to determine the drying rate of a fabric exposed to a prescribed volume of water while in contact with a heated plate under air flow conditions.
Air flow condition	Vertical air flow passing through fabric mounted on a circular opening	Horizontal air flow over the surface of a fabric while on a heated plate
Use of heated Plate	No	Yes, fabric in contact with a heated plate set at 37 C
Drying rate results expressed in	mL/hr	mL/hr

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FOR ENQUIRIES:

Global Competence Support Centre:
gcsc@sgs.com

Global Softlines Development Office,
global.sl@sgs.com

Asia – Hong Kong,
Tel: +852 2334 4481,
mktg.hk@sgs.com

Australasia – Perth.
Tel: +61 (0) 3 9790 3418
au.cts@sgs.com

Europe – London – UK.
Tel: +44(0) 203 008 7860
gb.cts.sales@sgs.com

Africa & Middle East – Turkey.
Tel: +90 212 368 40 00
sgs.turkey@sgs.com

Americas – USA.
Tel: +1 973 575 5252
uscts.inquiries@sgs.com

www.sgs.com/cgmr

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