

Specified Requirements for Cool Feeling Textiles

FTTS-FA-019 (Version 2.0)

FTTS-FA-019 Cool Feeling Textiles

1. Scope

The criterion is applicable to testing the instant cooling-feel of textile products for determining them and their semi-finished goods whether they possess the effect of a cooling feel.

This criterion is applicable to knitted and woven fabrics.

2. Terminology

Instant cool feeling(Touch Feeling of Warmth or Coolness/Q-max) :

Instant cool feeling is to measure the maximum heat loss of the moment of the simulation of skin contact with the fabric, which is the largest value of instantaneous heat flow pass through the fabrics. The unit will be express in watt per square centimeter (W/cm^2).

3. Specification

The specification of the instant cool feeling on fabrics must be not less than $0.140 W/cm^2$.

3.2 General requirement

Item	General requirement	Test method
Washing durability	Tested in original state, after 20 washes, or 50 washes (refer note 1).	A. Washed based on AATCC 135(2)III(A)ii for knitted fabrics. B. Washed based on AATCC 135(1)III(A)ii for woven fabrics.

note 1 : In addition to these three levels, the washing durability test can be formulated according to customer demands.

4. Test method :

4.1 Sample size :

The sizes of test samples should be $20cm \times 20cm$ (the actual measured area is $5cm \times 5cm$), leave the testing samples under standard condition in $20 \pm 2^\circ C$ and relative humidity $65 \pm 2\% RH$ for 24 hours.

4.2 Test environment :

Switch the constant temperature and humidity machine and keep the temperature of $25\pm 2^{\circ}\text{C}$, the relative humidity of $65\pm 5\% \text{RH}$ for not less than 1 hour to make sure it's a constant temperature and humidity environment then start the test.

4.3 Test equipment

Thermal property-measuring instrument KES-F7 THERMO LABO II or other same level of test equipment

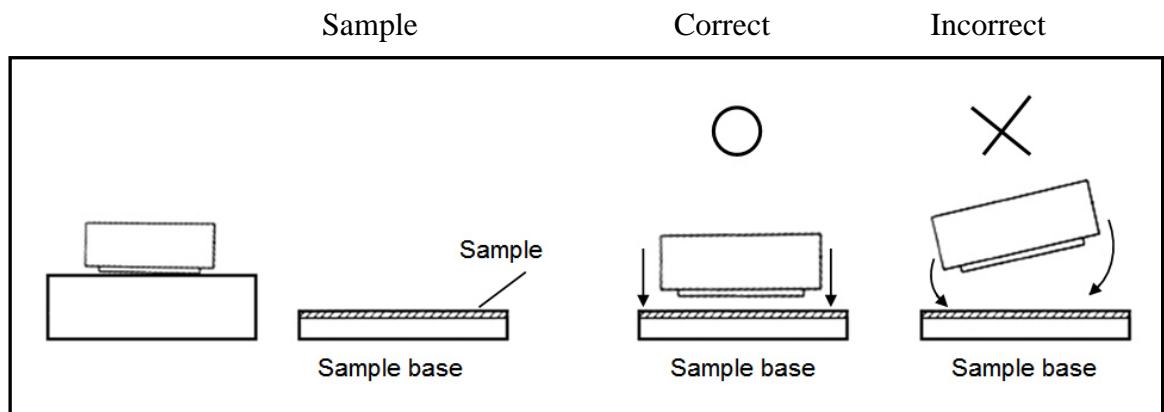
4.4 Test method

4.4.1 Switch on KES-F7 THERMO LABO II and keep it in warming up for 15 minutes.

4.4.2 Turn on the heater of heat flat and set up the Temperature-Box to $35\pm 0.1^{\circ}\text{C}$, switch on Guard Heater to “on” while Temperature-Box is reaching 35°C .

4.4.3 Set Water box in 25°C (that is simulating ambient environment), place the sample above the Water box in 25°C while the Water box is reaching 25°C (the close skin face should be the upside), push the qm button while Temperature-Box is reaching 35°C , then move the Temperature-Box above on test sample (notice that the placement angle for Temperature-Box should keep vertical, refer to figure 1), record qm digital on monitor, this digital which is indicating the cool feeling while touching this textile (the maximum of loss heat) is the result of test, The unit will be express in watt per square centimeter (W/cm^2).

(Figure 1) Placement Angle of Temperature-Box



4.5 Report Results

4.5.1 The average of 5 samples test data will be as the report result.

4.5.2 Report results in W/cm^2 rounding to the nearest thousandth.