

The Committee for Conformity Assessment of Accreditation and Certification on  
Functional and Technical Textiles

Specified Requirements for Cool Feeling Textiles

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Planning Unit: Specified Requirement Execution Team

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Planning Unit	Reviewed by	Approved by
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Document Revision History

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Edition	Revision Reason and Content Description	Revised Page	Revised Date
1.0	New issuance		December 26, 2008
2.0	Revised “Standard of Test Method for Cool Feeling Textiles” to “Specified Requirements for Cool Feeling Textiles”.		June 11, 2010
3.0	Discussed to agree in the Committee on October 9, 2013.		October 9, 2013

**1. Applicable Scope:**

This Standard applies for testing the cool feeling textiles, depending on the extent which can reach the temperature drop to determine the products and its semi-finished products, so that assesses the requirements for the cool effect.

**2. Term Definition:**

q-max:

It is that the maximum heat loss per unit ( $W/cm^2$ ) when an instrument is used for simulating the textiles to touch the human body as a index of cool feeling.

**3. Quality:**

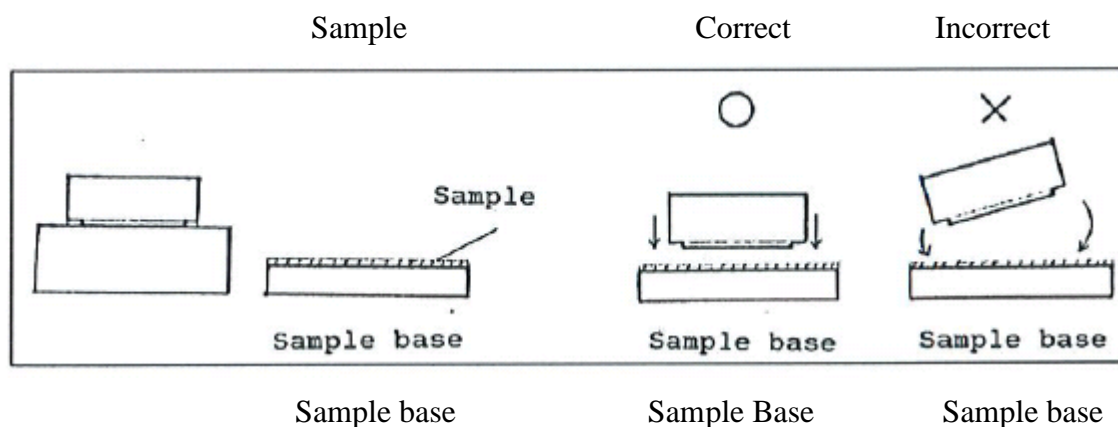
## 3.1 OK Standard

maximum heat loss per unit ( $W/cm^2$ )	
Knit	$\geq 0.130$
Weave	$\geq 0.170$

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<p>3.2 Washable Requirements</p> <p>The samples are tested according to CNS 15140, where the weaves follow 7B wash and mild dry, as well as the knits follow 8B wash and mild dry to wash five times in water. The time to wash can be decided by the interested party.</p> <p><b>4. Test Method:</b></p> <p>4.1 Sample:</p> <p>Five piece of sample with 20cm x 20 cm square (The actual tested area is 5cm x 5cm.) are tested, and must be placed in the ambient temperature <math>20\pm 2^{\circ}\text{C}</math> and relative humidity <math>65\pm 2\%</math> about 24 hours.</p> <p>4.2 Test Environment:</p> <p>In compliance with CNS 5611.</p> <p>4.3 Test Instrument</p> <p>Thermal instrument KES-F7 THERMO LABO II or equivalent one.</p> <p>4.4 Test Procedure</p> <p>4.4.1 Turn on Thermo Labo II, and warm-up about 15 minutes after the parameters are confirmed.</p> <p>4.4.2 Turn the heater switch to ON, and set the Temperature-Box to <math>35.0\pm 0.1^{\circ}\text{C}</math>. Turn the switch for the Guard Heater to ON when the temperature reaches <math>35.0\pm 0.1^{\circ}\text{C}</math>.</p>	
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4.4.3 Set the Water-Box to the required temperature (simulation of ambient environment) as  $25.0\pm 0.1^{\circ}\text{C}$ . The sample is placed on the Water-Box and face the side which the textiles stay close to the body upwardly until the temperature reaches  $25.0\pm 0.1^{\circ}\text{C}$ . When the Temperature-Box reaches  $35.0\pm 0.1^{\circ}\text{C}$ , you can press the qm button and quickly place it on the sample (Note the angle needs to be vertical, as shown in Figure 1.) to record the qm value on the screen. This value indicates the maximum heat loss for textile, an experimental result, in a unit of  $\text{W}/\text{cm}^2$ .

(Figure 1) Angle to put Temperature-Box



#### 4.5 Test Result

4.5.1 The test result is an average of test data in five times.

4.5.2 The effective data in the test report is averaged to the third place behind a decimal point.

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<p><b>5. Corresponding Standards:</b></p> <p>CNS 15687 Test Method for Cool Feeling Textiles</p> <p><b>6. Appendix</b></p> <p>This Standard is reviewed by the Specified Requirement Execution Team, and issued after approved by the Committee Director. The same procedures are applied when revised.</p>	
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