

Contribution to more comfortable life through textile and apparel goods with heat protection

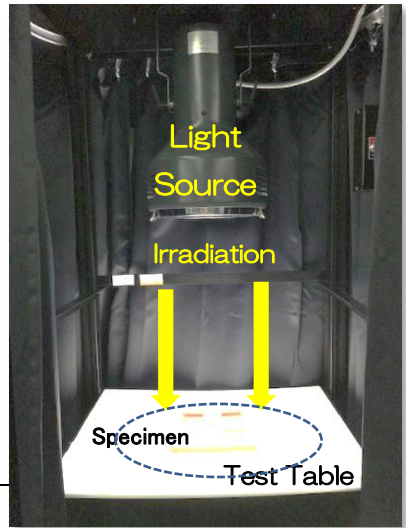
Introducing Heat-ray shielding performance

Desirable functionality for textiles as a heat protection

Measures against heat are required in various situations of daily life. One of the things that textile-fashion industries are working on to make a comfortable life for people is, the “Heat-ray shielding performance”. Traditionally, sports clothing and interior products such as curtains have been the mainstream; however, in recent years, it has also been applied to general clothing.

Regarding Heat-ray shielding performance (JIS L 1951)

“Heat ray shielding performance” is a function to suppress temperature rise by blocking solar radiation by special structural fibers such as a core sheath, or the shape, texture, and post-finishes. JIS L 1951 test method regulate the evaluation of this performance.

Test Method	<p>Set the distance from the test table to the light source to 500 mm, adjust the light source to $800 \pm 100 \text{ W/m}^2$, and insert the light shielding plate.</p> <p>Place the spacer and black heat ray receiver on the test table and place the test specimen in three places and leave one place blank. Place the test specimen holder in 4 places.</p> <p>Before light irradiation and 30 mins. after starting irradiation, the temperature of the backside of the heat receiver is measured by thermography. Change the location and specimen and measure the remaining 3 points to determine the mean.</p>																
Test Results	<p>Shielding Rates $S(\%) = \frac{(\Delta T_b - \Delta T_s)}{\Delta T_b} \times 100$</p> <p>$\Delta T_b$: Average rising temperature of the blank ΔT_s: Average rising temperature of the specimen</p> <p>The higher the shielding ratio, the higher the shielding effect.</p>																
Classification	<table border="1" style="width: 100%; text-align: center;"> <tr> <td>Heat-ray shielding coefficient (%)</td> <td>65 or more</td> <td>55 or more Less than 65</td> <td>45 or more Less than 55</td> <td>35 or more Less than 45</td> <td>25 or more Less than 35</td> <td>15 or more Less than 25</td> <td>Less than 15</td> </tr> <tr> <td>Category Symbol</td> <td>S65+</td> <td>S55</td> <td>S45</td> <td>S35</td> <td>S25</td> <td>S15</td> <td>S15-</td> </tr> </table>	Heat-ray shielding coefficient (%)	65 or more	55 or more Less than 65	45 or more Less than 55	35 or more Less than 45	25 or more Less than 35	15 or more Less than 25	Less than 15	Category Symbol	S65+	S55	S45	S35	S25	S15	S15-
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Category Symbol	S65+	S55	S45	S35	S25	S15	S15-										
Specimen Size	Please prepare 4 sheets of 90 mm x 90 mm.																

Contacts regarding this testing

~ Please feel free to contact us ~

Tokyo Laboratory -Kuramae Lab-

For other locations please refer [here](#)

