FUJIFILM
Value from Innovation

Heat Distribution Measurement Film Instruction Manual

THERMOSCALE 100

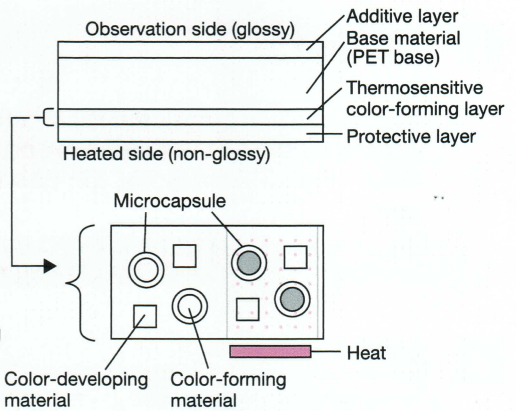
1 Structure and Principle

● Structure

As shown in the illustrarion at the right, on the side of the base film has a thermosensitive color-forming layer plus a protective layer, with the opposite side having a additive layer. A color is produced on the film in varied density to the quantity of heat applied. Heat distriburionon on the contact surface can be observed easily.

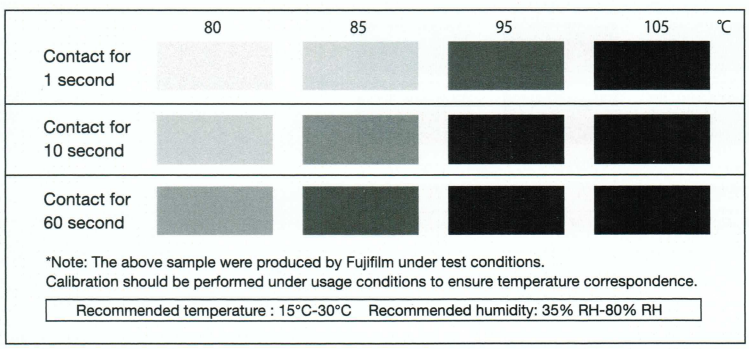
● Principle

When the film is subjected to heat, the color-developing material dissolves and the wall of the microcapsule becomes permeable. The color-developing material then penetrates the capsule reacting with the color-forming material, causing an area of color to appear.



2 Property

The color varies according to the temperature and duration of the heat to which the film is subjected.
The shorter the duration is, the paler the color is. The longer the duration is, the more saturated the color is.
The color will also change depending on other factors such as the material measured, thermal properties, contact pressure, ambient temperature/humidity and air currernt. Please read the note below when using this product.



*Note: The above sample were produced by Fujifilm under test conditions.
Calibration should be performed under usage conditions to ensure temperature correspondence.

Recommended temperature : 15°C-30°C Recommended humidity: 35% RH-80% RH

3 How to Use

Take out the THERMOSCALE film from the bag and trim to the desired size. Place the film over the area to be measured, allowing the heat to be applied to the non-glossy side. After measurement is complete, remove the film from the item being measured. Check the color distribution on the glossy side of the film to determine the heat distribution.

4 Precautions for Use

① Colors may vary depending on various conditions such as ambient temperature, humidity, air currents and contact pressure.
② Moisture, oil, dust or fingerprints on the film may leave marks, causing color unevenness.
③ The film cannot be reused.
④ Use the film before the expiration date indicated on the label attached to the side of its box.

5 Precautions for Storage

① Keep any unused film in its original bag, away from direct sunlight. Store it in a dark, cool (23℃ or below) area.
② Keep used film in a commercially available file, away from direct sunlight and flame. For long-term storage, place it in a dark, cool (23℃ or below) area. Make sure to keep the film away from chemicals and solutions which may cause problems on the observation side such as discoloration.

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Limited Warranty:
If this product is found to be faulty due to any defect in our manufacturing or packaging, our liability shall be limited to its replacement with an equivalent quantity of new products.