

FUJIFILM

Heat Distribution Measurement Film

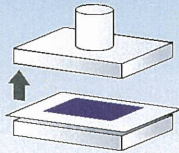
NEW

THERMOSCALE 200C

THERMOSCALE is a revolutionary new film that enables anyone to measure heat distribution easily by observing the variation in density and hue.

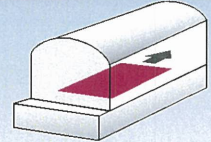
THERMOSCALE uses special technology that regulates color intensity and hue in accordance with heat value to generate a highly accurate depiction of heat values over a wide range. THERMOSCALE is ideal for applications involving analysis of heat distribution during press, roll, and laminate processes and within drying ovens.

Press



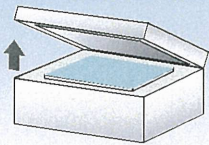
ACF bonding, heat seals, Li-ion batteries, solar panels

Oven



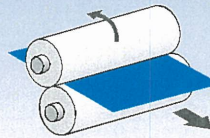
Drying oven, baking oven, vacuum film production, measuring surface heat distribution on parts

Laminator



PCB, solar panels, protective film laminating

Roll



Nip roll, calendar roll, printing roll, printer roll



Feature

Easy to use

No measuring equipment required. Simply cut to size and insert as required.

Fast results

No need for multi-point measurement; one sheet provides all the required information.

Simple to understand

Heat distribution is illustrated graphically via color depth and hue patterns.

Effective

Quality

Replaces point measurement with plane measurement to enable quality monitoring over the entire working surface. Plane measurement also boosts quality standards by identifying localized flaws and areas where further point measurement is required.

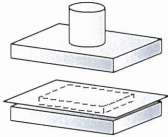
Efficiency

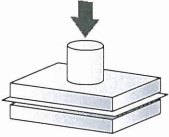
No special equipment needed, just a single sheet of THERMOSCALE. Reduces time required for testing, particularly time taken to design experimental conditions during the development phase.

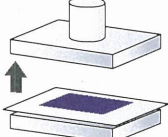
Productivity

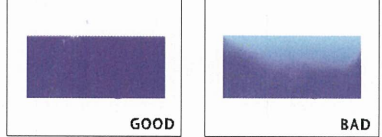
Simplifies the process of analyzing heat distribution to identify and prevent potential heat-related faults, thereby improving yield. Ideal for thermal defect analysis which speeds up troubleshooting and boosts productivity.

How to use—thermal press

- 1 

Cut THERMOSCALE to the required shape/length and orient the film so that the heat source contacts the non-glossy surface.
- 2 

Operate the machinery in the normal manner.
- 3 

THERMOSCALE changes color in accordance with the heat distribution.
- 4 

Remove the THERMOSCALE and observe the color pattern from the glossy side of the film.

Properties

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 and the more bluish the color is. The longer the duration is, the more saturated and the more reddish the color is. As the color will also change depending on other factors such as the material measured, its thermal properties, contact pressure and air currents, please read the notes below when using this product.

	150	160	170	180	190	200	210	°C
Contact for 5 seconds								
Contact for 20 seconds								

Note: The above chart is a sample based on the results of a tests performed at Fujifilm. Before using THERMOSCALE, create a similar chart that is based on the actual measurement conditions.

Specifications

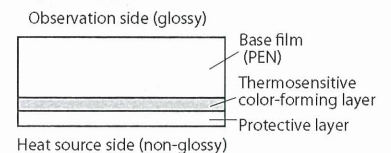
Temperature range (approximate)	150° C–210° C* (contact time = 5–20 sec)
Size	270 mm × 200 mm
Sheets	Five
Thickness	0.09 mm

* Actual temperature range depends on conditions of use including contact time, materials, pressure, and air flow.

Structure

The base film is coated with a thermosensitive color-forming layer and a protective layer. This is the non-glossy surface that comes into direct contact with the heat source.

The glossy side of the sheet is used to analyze the color patterns that represent heat distribution.



Easy to use with a single sheet, ideal for a wide range of applications. Inquire now.

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FUJIFILM Corporation

<http://www.fujifilm.com/products/prescale/>