LCRHallcrest

Safetemp ®

Retail Food Display Temperature Monitors

Reversible Temperature Indicators

What They Are:

These self-adhesive labels consist of a temperature-sensitive element containing microencapsulated **Thermochromic Liquid Crystal** (TLC) coated on a black backing. This element changes color distinctly as its rated temperature is reached and maintained. The color changes are reversible meaning that the reflected color will turn black as the temperature is reversed. Safetemp labels can be ascending (SCA) or descending (SCB) that is change from black to a color as temperature increases or black to a color as the temperature decreases.
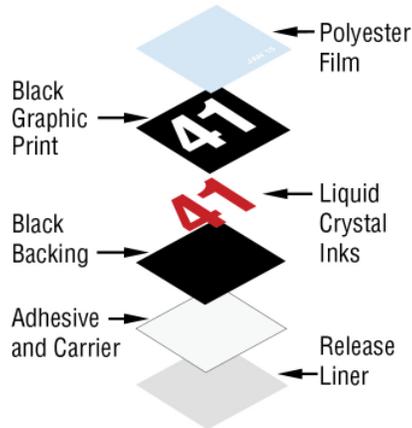
How safetemp labels work:

The temperature sensitive elements contain TLC molecules that are very sensitive to temperature and change their arrangement in response to changes in temperature. This change in molecular geometry affects the way in which the TLC interacts with light, resulting in a change in the color of each temperature event.

When the rated temperature of an indicator is reached, the TLC changes its form from reflecting (color) to non-reflecting (black) or vice versa. This causes the color-change at the temperature event to occur.

Label Construction:

Component:	Thickness
Polyester film	>75, 125, 175μ
	(Depending on label type)
Graphic Print	10-20μ
Liquid Crystal Ink	50-100μ
Black Backing	10-20μ
Adhesive & carrier	150-180μ
Release Liner	75μ

Above values are general guides using the standard products as a representative example.

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Adhesive Tape	Double-coated Adhesive Tape
Covering Film	Polyester 5 mil stock
Color Change Material	Non-toxic mixture of liquid crystal esters
Accuracy	+2°C
Guarantee	12 months from invoice date when stored at room temperature (i.e. 21ºC (70ºF) & 50% relative humidity).

Reading safetemp Labels:

The correct temperature is indicated by the event on the TLC thermometer that turns color.

Custom Products:

In addition to the standard **Safetemp** labels, which cover the temperature range of 0-145°F, a full custom manufacturing service is available and products can be manufactured to meet customers' precise requirements of, for example, size, shape, color, temperature range, number of temperature elements, and/or graphic printing (custom logos). Please ask for details.