



013.165.6 Brewferm liquid crystal thermometer strip 0-30°C

What They Are

These self adhesive labels consist of a series of temperature-sensitive elements containing microencapsulated **Thermochromic Liquid Crystal** TLC coated on a black backing. Each element changes color distinctly as its rated temperature is reached, passing through the colors of the spectrum in sequence (Orange, Yellow, Green, and Blue before turning black at a higher temperature. The TLC strips are calibrated so that the indicator that shows green indicates the actual temperature. The color changes are reversible and the reflected colors will be observed in the reverse order upon cooling.

How the labels work

The temperature-sensitive elements contain TLC molecules that are very sensitive to temperature and change position / twist in relation to changes in temperature. This change in molecular structure affects the wavelengths of light that are absorbed and reflected by the liquid crystals, resulting in an apparent change in the color of each temperature event.

When the rated temperature of an indicator is reached the TLC molecules twist slightly causing the TLC substance to absorb the red and blue portions of the visible light and reflect the green part. This causes the temperature event to appear green. When the temperature decreases, the molecules begin to twist in the opposite direction, and the TLC reflect a different portion of the spectrum.

Material:

Adhesive Tape Double-coated Adhesive Tape
Covering Film Polyester 5 mil stock
Color Change Material Non toxic mixture of liquid crystal esters

Accuracy

0 to 30°C ±1°C

Recommended Storage

Must be stored at room temperature 20°C/68°F in a dark, low humidity environment. Must be kept away from solvents & UV light.

Shelf Life

Shelf Life 12 months from invoice date when stored at room temperature (i.e. 21°C (70°F) & 50% relative humidity).

Cleaning

The products should be cleaned by gently wiping with a soft cloth or tissue dipped in water.

Version 1 - 13/03/2017

Brouwland

Korspelsesteenweg 86 • B-3581 Beverlo - Belgium
Tel. +32 11 40 14 08 • Fax. +32 11 89 03 09
info@brouwland.com • www.brouwland.com