

Windows Change Color for Continuous Visual Monitoring of Surface Temperatures from -30°C to 120°C (-22°F to 248°F)

Telatemp liquid crystal thermometers indicate the current temperature by the green indication. If green is not visible, the temperature will be midway between the indicators that are illuminated tan and blue. The colors are seen in reverse order as the temperature cools.

Custom thermometer strips are available formulated in ranges from -30°C to +120°C (-22°F to 248°F).

HOW THE LIQUID CRYSTAL THERMOMETER WORKS

- Each liquid crystal element is formulated for a specific temperature response
- The crystal molecules are sensitive to temperature and change position/twist in relation to changes in temperature
- The change in molecular structure affects the wavelengths of light so that it appears to change color

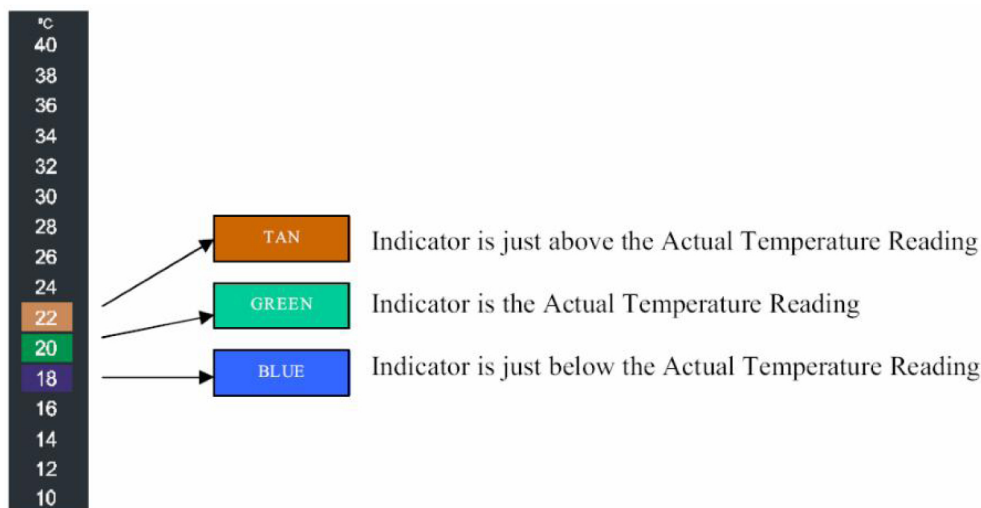
FOR USE IN

- Instructional and educational usage
- General non-destructive testing (NDT) and thermal mapping
- Research (engineering, aerospace)

PRESENTATION

- Available marked in °F, °C or both
- Vertical or horizontal strips
- Reversible indicator – displays current temperature

As it warms to the response temperature, the window starts with a tan or reddish-brown and continues to change to green (the color of the rated temperature) and may warm further to blue and again to black. The colors are seen in reverse order as the temperature cools.



Please note the above colors are a guide for demonstration purposes and the actual colors observed could be slightly different depending on label type.

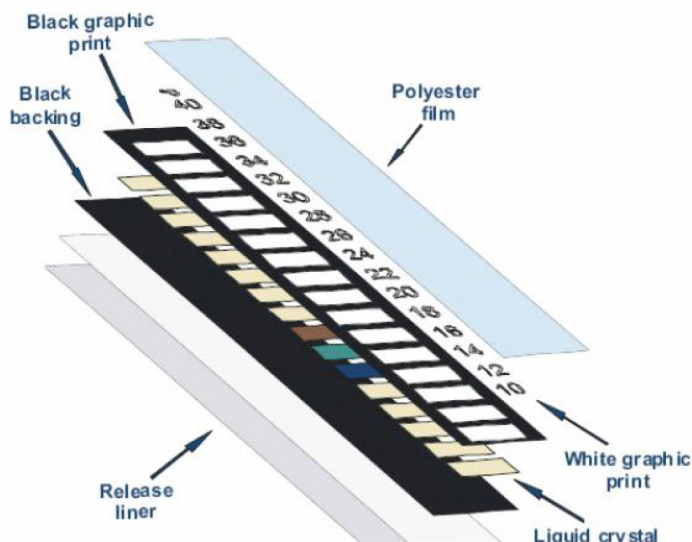
These adhesive-backed liquid crystal thermometers have many real-world applications that include room or refrigerator thermometers, body temperatures, optimum processing or operating temperatures, hot warning labels, thermal profiling, etc

HOW IT'S MADE

- The crystalline slurry is screened onto a black backing to enhance the viewing of the color change
- Unless the temperature is within the range of the liquid crystal material the indicating window remains black

Label Construction:

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



SHELF LIFE: Guaranteed 2 years from date of shipment if maintained in a cool (less than 70°F), dry (less than 50% RH) environment.

WARRANTY: The following is made in lieu of all warranties, expressed or implied, including the implied warranties of merchantability and fitness of purpose: Seller's and manufacturers only obligation shall be to replace such quantity of the product proved by Telatemp Corporation to be defective.

LIMITATION OF LIABILITY: All physical properties, statements, and recommendations are either based on tests we believe to be reliable or our experience, but they are not guaranteed. Telatemp Corporation recommends each user determine the suitability of the products for the intended application. Telatemp Corporation shall not be liable for direct, indirect, special, incidental or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability or any other legal theory.

LIQUID CRYSTAL THERMOMETER STRIP SPECIFICATIONS:

Accuracy:	-30 to 59°C ±1°C
	60 to 89°C ±2°C
	90 to 120°C ±3°C
Shipping:	No special packaging required for shipping
Shelf Life:	24 months from date of shipment when stored at room temperature 21°C (70°F) & 50% relative humidity
Color Change Material:	Non-toxic mixture of liquid crystal esters
Covering Film:	Polyester 5-mil stock
Presentation:	Self-adhesive backing on release liner
Packaging:	Bags of 100 pcs.