

# The Chemistry Behind the Brand

MEDICAL  
INDICATORS

Medical Indicators' thermometers, including NexTemp®, NexTemp® Ultra, TraxIt®, and Tempa•DOT®, utilize an innovative and proprietary chemistry system to safely and accurately measure core body temperature. Precision Phase Change Technology (PPCT) is used in our thermometers in one of two ways: through either our NexTemp Liquid Crystal Technology™, which is used in our NexTemp® and TraxIt® line of thermometers, or through Tempa•DOT®'s Solid Crystal Technology.

In both cases, PPCT is used in a dot matrix that is comprised of heat-sensitive crystals. These crystals contain a unique formulation of chemistry that is designed to react, or change color, at a specific temperature. Each dot has been custom formulated to react and change color at its precise temperature point that is accurate to  $\pm 0.2^\circ\text{F}/\pm 0.1^\circ\text{C}$  – which is the highest level of accuracy attainable in any thermometer on the market today. The number of dots that fire is dependent upon a patient's temperature – with the last dot to fire, or change color, providing the highly-accurate reading.

For NexTemp®, NexTemp® Ultra, and TraxIt® thermometers when the dots fire, they will change color from green to black; and with Tempa•DOT® thermometers, the colors will change from tan to blue.



Precision Phase Change Technology is a remarkable innovation that allows Medical Indicators to provide users with peace of mind knowing that our thermometers are safe, reliable, and accurate.

Additionally, our thermometers undergo two-stage precision accuracy testing throughout the manufacturing process to ensure we meet the requirements of both nationally and internationally-recognized testing standards. We utilize calibrated precision water baths to confirm their accuracy and reliability, and visual inspection is performed to ensure the crystallized chemistry is deposited properly in each designated dot matrix.

