



P8003 IRREVERSIBLE TEMPERATURE INDICATORS

Technical and Usage Information

The P8003 Irreversible Temperature Indicator is a self-adhering, self-activating monitoring tool that provides a visual, non-reversible record of the maximum temperature in a process. The record occurs by a change of color from white to red in the viewing window.

The indicator is a 1-5/8" by 1-15/16" printed label with activation material applied to the unit. The top of the indicator label is protected by a clear pressure sensitive adhesive, and the back has a permanent supertack adhesive covered by a release liner. When the release liner is removed, the exposed adhesive allows attachment of the indicator to most clean, dry surfaces. The label offers a highly accurate, flexible, non-toxic, non liquid-filled, and non-breakable indicator.

The chemicals in the indicators are calibrated to react at the labeled temperatures $\pm 1^{\circ}\text{C}$. When the chemical reaction occurs, activation causes a permanent, non-reversible color change in the viewing window. The indicator labels can be used at any time to monitor the temperature in a process. This product is manufactured in a certified ISO 9001 facility.

Storage

Store the indicators in a cool area (below 78°F or 26°C) at all times. Storage in a refrigerated environment (40°-60°F or 4°-16°C) is the preferred storage method. Storage in a freezing environment has not been shown to adversely affect the functioning of the indicator.

Cautions

The indicators react immediately! Handle with care in a cool area.

The 27.5°, 30.0° and 32.5° indicator circles can be changed by a person's body heat. Avoid handling the label near these points.

If attaching a large quantity to a product (for example, a dose map), keep the product in a cool area before irradiation.

The adhesive on the P8003 indicator is permanent. Do not use the self adhering backside to attach the indicator to anything that you do not want it permanently affixed to. Taping the backing along the edges is the suitable alternative to attach the indicator.

Instructions for Use

Attach the indicator flat against the surface being monitored, such as a B3WINdose dosimeter package. The indicator is self-activating and needs no further action. As a specific temperature is reached the circle changes color. The maximum temperature reached during a process is the highest value indicated with a red window.

Applications

These irreversible temperature paper sets may be used to measure the maximum temperature of products and materials during radiation processing. They are also ideal for use during calibration irradiations where the temperature must be measured or in dose mapping characterization of facility or product. See NPL CIRM Report 29 for guidance in estimating temperature during in-situ calibration. P8003 temperature paper sets may also be used to monitor temperature during routine irradiation processing and many other applications.

