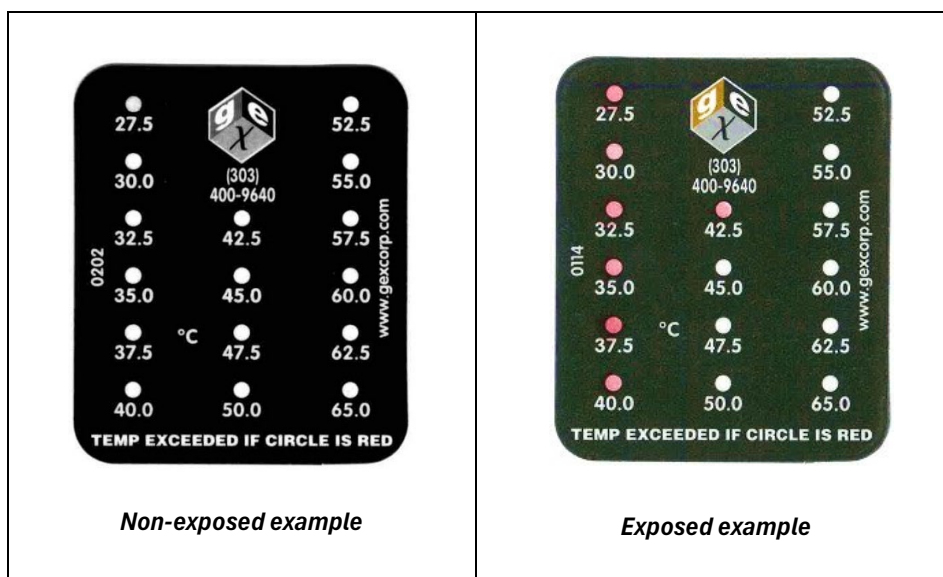


1. Product Information

GEX PRODUCT ID	PRODUCT NAME
P8003	Irreversible Temperature Indicators

1.1 Product Photos



The GEX P8003 Irreversible Temperature Indicators are a self-adhering, self-activating, monitoring tool that provides a visual and irreversible record of the maximum temperature exposure. The product has a successful 20-year history of use in the radiation processing industry and is accurate flexible, non-toxic, and non-breakable Indicator of maximum temperature.

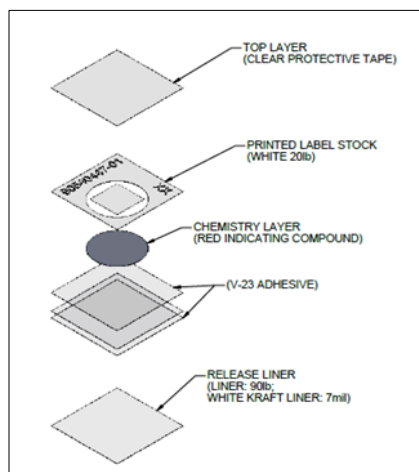
The label features 16 temperature intervals (ranging from 27.5°C to 65.0°C). The color change from white to red is activated to indicate when each temperature interval event has occurred ($\pm 1^\circ\text{C}$).

2. Product Description

The GEX P8003 Irreversible Temperature Indicators are a self-adhering, self-activating, monitoring tool that provides a visual and irreversible record of the maximum temperature exposure. The product has a successful 20-year history of use in the radiation processing industry, and is accurate¹, flexible, non-toxic, and non-breakable Indicator of maximum temperature.

The label features 16 temperature intervals (ranging from 27.5°C to 65.0°C). The color change from white to red is activated to indicate when each temperature interval event has occurred ($\pm 1^\circ\text{C}$).

3. Technology



A calibrated activation chemistry layer is applied at each temperature event location on the label. The chemicals in the indicators are calibrated to react at the labeled temperatures. The label chemistry has been proven to be reliable under high-radiation dose conditions in designed experiments.

A clear, pressure sensitive adhesive protects the top of the indicator label, and the back has a permanent super-tack adhesive covered by a release liner.

This product is manufactured and qualified in large batches in a certified ISO 9001:2015 facility.

4. Intended Use

The Irreversible Temperature Indicator is designed for use in Gamma, Electron Beam, and X-ray radiation process applications. The temperature range of the indicator works especially well for medical device sterilization applications.

4.1 Usage

- Peel off the release liner (backing material) from the indicator. The adhesive allows attachment of the indicator to most clean, dry surfaces
- Attach the indicator flat against the surface being monitored
- The maximum temperature achieved during a process is indicated with a red window

4.2 The indicator may be used:

- Measuring the maximum temperature of products and materials during radiation processing
- During calibration irradiations where the temperature must be measured
- In dose mapping characterization of a facility or product
- To monitor temperature during routine irradiation processing



5. Product Specifications

Product Dimensions	Packaging Specifications	Weight (10 Units/Package)
1.950 in x 1.625 in \pm 0.03125 in	3.0 in x 5.0 in	0.30 lbs.
49.53 mm x 41.28 mm \pm 0.7938 mm	76.2 mm x 127 mm	Approx. 0.136 kg

Range:	27.5°C to 65.0°C (81.5°F to 149.0°F) in 2.5°C increments
Accuracy:	\pm 1.0°C
Shelf Life:	~2 years from the ship date. Month and Year of manufacture are printed on the product
Certificate of Compliance:	Issued with each customer order of the product

6. Receiving Inspection

The product is shipped from GEX inside of insulated shipper boxes, then with ice packs to ensure the product always remains below 26.0°C (78.0°F). The product should be immediately inspected by the customer upon receipt to check the condition of the indicators.

7. Storage

Store the P8003 product in a cool, dry area below 26°C (78°F) always. Storage in a refrigerated environment 4°-16°C (40°- 60°F) is the preferred storage method. Storage in a freezing environment at 0°C (32.0°F) has not been shown to adversely affect the functionality of the indicator.

8. Stability

Under the proper storage conditions, non-exposed, Irreversible Temperature Indicator activation trigger points remain a white color for at least 2 years from the date of manufacture until exposed to the trigger temperatures.



9. Health / Environmental Influences

Irreversible Temperature Indicators are non-toxic, non-liquid-filled, and non-breakable. Indicators can be safely discarded in general waste receptacles.

10. Precautions

- The indicators react immediately within the active temperature range! Handle with care in a cool, dry area.
- The indicator can be activated by a person's body heat. Avoid handling the indicator near activation trigger points.
- If you attach a large quantity of indicators to a product (i.e. a dose map), keep the product in a cool, dry area before irradiation.
- The adhesive on the P8003 indicator is permanent. Do not use the self-adhering backside of the indicator to attach to anything you do not want it permanently attached to. Taping the backing along the edges of the indicator is a suitable alternative to attach the indicator.

11. Shipping / Delivery

Country of origin	U.S.A
 CAUTION	Always keep shipping containers and product box upright.
 CAUTION	Whenever the spectrophotometer has been stored or shipped, immediate exposure to room air can cause condensation damage. Move the shipping cartons to the installation location at least 24 hours before installation. This allows the instrument to equilibrate at room temperature before the shipping cartons are opened, and protective packaging is removed.

12. Quality Assurance

GEX's Quality Management System (QMS) is ISO 9001:2015 accredited. Download certificates and more information is available <https://www.gexcorp.com/quality.html>.

ISO 9001:2015 Certification American Thermal Instruments, www.americanthermal.com/safety-certification



13. Revision History

DATE	CHANGE DESCRIPTION	REVISION
06/30/2025	All content and information from GEX DOC # 100-109 (P8003) transferred into the new GEX Product Spec Sheet template. Initial release. OBS Doc ID 100-109. ECO 75137	A

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