



FREEZEmarker[®]

Freeze Event Indicator

- Identifies when a potentially damaging freeze event has been experienced for a short period of time.
- Easy-to-read, irreversible visual color change.
- Used to identify and prevent the administration or use of products that can be damaged or lose strength after a freeze event.

FREEZEmarker, manufactured by Temptime, is a single-use indicator that provides an easy-to-read, irreversible visual signal when there has been exposure to a freezing temperature for a short period of time. When the indicator temperature remains above the specified temperature, the green circle with a white checkmark inside the circle is visible. When exposed to temperatures at or below the specified temperature, the green circle will partially or completely change to white opaque/cloudy, showing that a temperature excursion has occurred, and the endpoint has been reached.

FREEZEmarker can be affixed to an individual unit to monitor the product from manufacture to use, or later in the cold chain to monitor the product for a portion of its distribution. Many medical products can be damaged and lose strength if they are frozen. Such excursions can go unnoticed during shipping and storage. Leading medical product manufacturers and distributors use FREEZEmarker.



OK



FROZEN





Features

- Irreversible
- Easy to understand
- Single-use
- Multiple Temperature Ranges
- No device activation required
- Nontoxic materials

Benefits

- · Identify and avoid administration of freeze exposed products
- Extend quality management system from manufacturing to ultimate use
- Strengthen conformance to International Code on Harmonization (ICH) Q9 and Q10
- Reduce unnecessary waste by limiting the destruction of products incorrectly suspected of freeze abuse
- Environmentally friendly

FREEZEmarker[®]

Performance and Use

Sensor Specifications

Response Temperatures: 0°C / -1°C / -6°C (±2°C) Accuracy: ±1°C Response Time: Within 30 minutes Storage Temperature: Refrigerated temperature (2°C to 8°C) Shelf Life: 2 to 4 years, determined by category Usage: Single use Temperature Monitoring: Continual Device Size: 20mm x 29mm Additional Features: Adhesive backing

Quality System

- Temptime's quality management system is consistent with FDA Quality System Requirement (QSR) 21 CFR 820 (GMP for medical devices)
- ISO 9001
- ISO 13485

Tap into the future of temperature monitoring at www.zebra.com/tempmonitoring



NA and Corporate Headquarters +1 800 423 0442 inquiry4@zebra.com Asia-Pacific Headquarters +65 6858 0722 contact.apac@zebra.com EMEA Headquarters zebra.com/locations contact.emea@zebra.com Latin America Headquarters +1 866 230 9494 la.contactme@zebra.com

ZEBRA and the stylized Zebra head are trademarks of Zebra Technologies Corp., registered in many jurisdictions worldwide. All other trademarks are the property of their respective owners. ©2021 Zebra Technologies Corp. and/or its affiliates. R3, Doc #2244, 10/2021.



(664) 215 0679







