SpotSee®

Distributed by PharmaSystems Inc.
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ColdChain Complete Temperature Indicators

The ColdChain Complete line of solutions from SpotSee is the cost-effective solution to monitor temperature sensitive products. They are a single-use visual indicator that provide accurate, irreversible evidence of a temperature excursion created to help our customers monitor for cold and hot temperature excursions. It is available in two formats: the standard ColdChain Complete and ColdChain Complete XS.

How can you be sure that unacceptable temperature during transit has not compromised your product's quality and efficacy?

The ColdChain Complete XS is designed as a cost-effective, single label format with a self-adhesive back that can be used in smaller spaces. The standard ColdChain Complete version provides a larger footprint for increased visibility and can be easily inserted into a shipping box or placed into insulated containers. Pharmaceutical manufacturers and distributors, diagnostics labs, delivery companies, as well as food and beverage logistics organizations rely daily on the reliability of SpotSee's ColdChain Complete solutions to reduce waste, ensure product efficacy and safety, and identify issues in their supply chain.
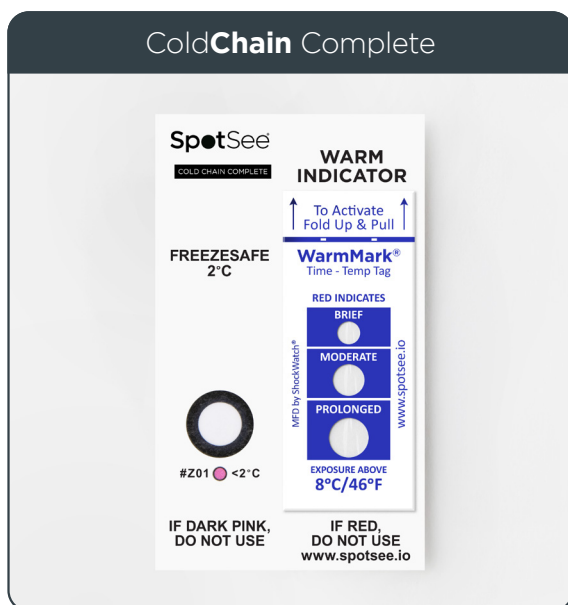
Because Every Degree Matters

- Fortify your cold chain packaging solution for when transit doesn't go as planned.
- Deliver irreversible evidence of exposure to unacceptable temperature conditions.
- Validate your cold chain and ensure product efficacy with time over temperature monitoring.
- Upper and lower temperature thresholds designed for sensitive pharmaceuticals, samples, and diagnostic products.
- Visual indication creates peace of mind for cold chain participants and requires no unique process or software for assessing an excursion.

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ColdChain Complete Temperature Indicators

Key Specifications

Temperature Accuracy	±1°C / ±2°F for both freeze and warm indicators
Storage Condition	Store in dark environment between 15°C- 25°C (59°F - 77°F), 35-55% RH
Shelf Life	1 year
Arming Method	Freeze indicator: None / Warm indicator: Pull-tab
Mounting Method	ColdChain Complete: Place indicator as close to the product being monitored as possible. ColdChain Complete XS: Adhere or place indicator as close to product being monitored as possible.

Cold**Chain** Complete

Part Number	Temperature Range	Run Out Time			Freeze Activation
Freeze & 3 Window Warm Indicator Card		**Brief**	**Moderate**	**Prolonged**	**Within**
27178	2°C- 8°C / 36°F- 46°F	2 Hours	12 Hours	48 Hours	90 Minutes
27179	0°C- 8°C / 32°F- 46°F	2 Hours	12 Hours	48 Hours	60 Minutes
Freeze & Single Window Warm Indicator Card					
27180	0°C- 25°C / 32°F- 77°F	---	---	8 Hours	60 Minutes
27182	2°C- 25°C / 36°F- 77°F	---	---	8 Hours	90 Minutes
27183	0°C- 8°C / 32°F- 46°F	---	---	8 Hours	60 Minutes
27184	2°C- 8°C / 36°F- 46°F	---	---	8 Hours	90 Minutes

Cold**Chain** Complete **XS**

Freeze & Single Window Warm Indicator		Brief	Moderate	Prolonged	Within
CCC XS 2-8-8	2°C- 8°C / 36°F- 46°F	---	---	8 Hours	90 Minutes
CCC XS 0-8-8	0°C- 8°C / 32°F- 46°F	---	---	8 Hours	60 Minutes
CCC XS 2-8-48	2°C- 8°C / 36°F- 46°F	---	---	48 Hours	90 Minutes
CCC XS 0-8-48	0°C- 8°C / 32°F- 46°F	---	---	48 Hours	60 Minutes
CCC XS 0-25-8	0°C- 25°C / 32°F- 77°F	---	---	8 Hours	60 Minutes
CCC XS 2-25-8	2°C- 25°C / 36°F- 77°F	---	---	8 Hours	90 Minutes

ColdChain Complete Temperature Indicators

ColdChain Complete Use Instructions

1. The warm indicator breach window(s) of the ColdChain Complete should be white prior to pulling the tab and arming the device, while the freeze indicator dot should be clear and may appear light magenta.

2. Before arming, most ColdChain Complete and ColdChain Complete XS products should be placed in an environment at least 5°C (9°F) below the device's warm threshold temperature for a minimum of 30 minutes. This process is known as pre-conditioning. Alternatively, the 0°- 8°C (32°F- 46°F) and 2°- 8°C (36°F- 46°F) configurations should be pre-conditioned at their mid-point temperature of 4°C (39°F) and 5°C (41°F) respectively, so as to not risk activating the freeze indicator.

3. To arm the ColdChain Complete warm indicator, fold, then pull the indicator's activation tab until the tab and barrier film are completely removed from the device. The freeze indicator portion requires no arming.

4. If using a ColdChain Complete with a warm indicator threshold temperature below ambient temperature, immediately place the indicator in the environment to be monitored to avoid early activation.

5. Place, or adhere if using the XS model, the ColdChain Complete close to the product being monitored and where it will be visible to the receiver of the monitored shipment.
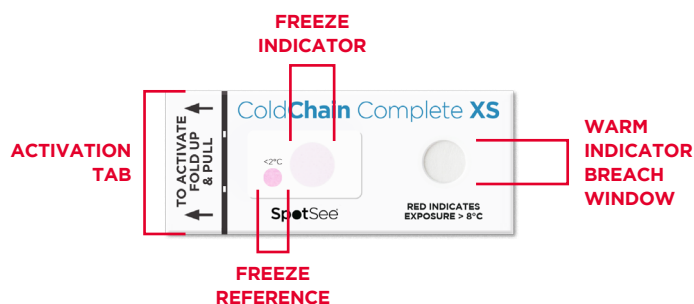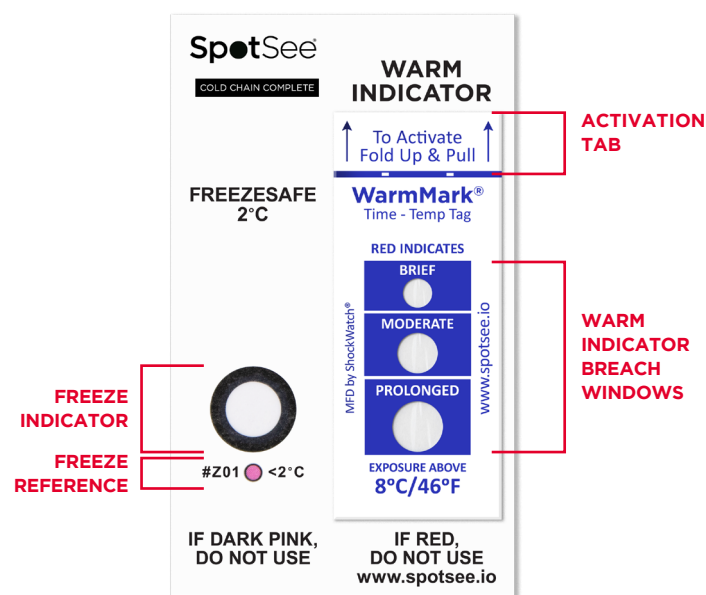
Interpreting Warm Indicator

Any sign of color in the warm indicator breach window(s) after arming, including light pink, pink, or red, is a sign of temperature excursion equal to or above the time and temperature specification.

Interpreting Freeze Indicator

SpotSee freeze indication uses a color changing indicator dot (large) and a static reference dot (small). Freeze exposure beyond the time and temperature specification is shown when the indicator dot is as dark, or darker, than the reference dot. An indicator dot may start clear, or light magenta, and show minor color darkening but remain lighter than the reference dot. This may mean the indicator saw brief exposure to the threshold temperature.

Warm indicator run out times are based on constant temperature 2°C above the threshold. Exposure to higher temperatures will result in faster run out.

Freeze indicator activation times are based on constant temperature 1°C below the threshold. Exposure to lower temperatures will result in faster coloration.