

## Coldmark Thermo Labels

### Product Specifications

<b>Response Temperatures</b>	51001 32°F / 0°C 51002 26°F / -3°C
<b>Accuracy</b>	±1°C (1.8°F) of the response temperature

#### Storage and Handling Instruction

The ColdMark Freeze Indicator is self activating; there is no activator tab to pull. If the ColdMark Indicator is exposed to temperatures below its response temperature, the bulb of the Indicator irreversibly changes from clear and colorless to a violet color. (Note: if the ColdMark is exposed to temperatures low enough to freeze the indicator, the indicator bulb may appear milky white. The Indicator will change to violet when the device thaws).

The ColdMark Freeze Indicator may be stored at room temperature or placed in cool storage, provided the storage temperature is at least 5°C above the stated response temperature of the Indicator. This 5°C allowance anticipates that there may be some random cold pockets in the facility where the Indicators are being stored. The ColdMark should not be stored above 43°C. Storage above this temperature will result in product damage.

To mount a ColdMark Indicator, the adhesive lining must be peeled from the back of the Indicator exposing the pressure sensitive adhesive. The adhesive lining is most easily peeled from the bulb end of the Indicator. Adhere the Indicator to a clean, dry surface.

The ColdMark Freezer Indicator activates at its stated response temperature ±1°C.

DeltaTRAK will not honor warranty claims for products that have not been stored and/or handled in accordance with the above guidelines.



**Model 51001**

32°F / 0°C

**Model 51002**

26°F / -3°C

#### How COLDMARK Works

The COLDMARK Indicator tube and bulb contain a specially formulated colorless fluid, a violet-colored fluid, and a green colored fluid separating the two.

When the indicator is exposed to a temperature at or below the response temperature within 60 minutes, the colorless bulb solidifies and contracts. This draws the colored liquids into the bulb and changes from clear and colorless to cloudy with streaks of violet. When the indicator is warmed to above the response temperature again, the bulb changes irreversibly to a uniform violet.

- Protects products that are sensitive to extremely cold temperatures
- Adhesive labels can be applied to a product, package, carton or master pack
- Tamper proof method of verifying when freeze damage has occurred during shipping, storage, or handling

DeltaTRAK manufactures products under an ISO 9000 registered quality management system

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