

### WarmMark Time/Temperature Indicators Monitor Temperature During Shipping and Storage

WarmMark Time Temp Tags, with self-adhesive backing, are a convenient and accurate device for monitoring temperature during shipping and storage of drug and medical products, vaccines, blood or plasma, diagnostics, gelatin capsule products, chemicals and refrigerated or frozen food products.

These devices monitor whether a product has been exposed to temperatures above a predetermined threshold. Response temperatures and run-out times (cumulative exposure time to a certain temperature value) vary with each WarmMark model.

The red coloring indicates exposure to temperatures above the rated value for that tag. Color movement through the indicator windows records the duration of exposure. If the temperature cools below the threshold, the color stops moving and a permanent record of how long the product was above the rated temperature remains.

#### FEATURES

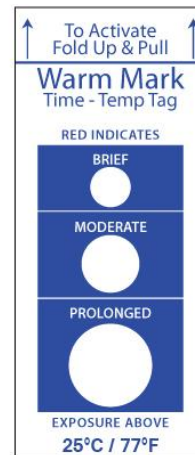
- Available in wide variety of temperature thresholds
- Visible deterrent to mishandling
- Irreversible indicator
- Tamper-proof design
- Self-adhesive backing on release liner
- Allows for variety of placement options

#### BENEFITS

- Reduces product damage during transportation and storage
- Provides evidence of exposure to unacceptable temperature conditions
- Ensures compliance with health standards
- Alerts recipient to inspect contents before acceptance
- Protects against warranty claims

#### APPLICATIONS

- Frozen/refrigerated food
- Fresh food
- Blood or plasma products
- Vaccines
- Chemicals
- Cosmetics
- Pharmaceuticals
- Electronic components



**SHELF LIFE:** 2 years from date of shipment when stored at least 5°C below the response temperature

**SHIPMENT:** No special packaging required for shipment.

**WARRANTY:** The following is made in lieu of all warranties, expressed or implied, including the implied warranties of merchantability and fitness of purpose: Seller's and manufacturers only obligation shall be to replace such quantity of the product proved by Telatemp Corporation to be defective.

**LIMITATION OF LIABILITY:** All physical properties, statements, and recommendations are either based on tests we believe to be reliable or our experience, but they are not guaranteed. Telatemp Corporation recommends each user determine the suitability of the products for the intended application. Telatemp Corporation shall not be liable for direct, indirect, special, incidental or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability or any other legal theory.

*\*Prices and specifications are subject to change without notice.*

**WARMMARK SPECIFICATIONS**

<b>Accuracy:</b>	+/-1°C
<b>Shipping:</b>	No special packaging required for shipping
<b>Storage:</b>	Must be stored at least 5°C colder than the response temperature
<b>Shelf Life:</b>	24 months from invoice date when stored according to requirements
<b>Preconditioning:</b>	Must be preconditioned prior to use, see WarmMark Instructions
<b>Presentation:</b>	Self-adhesive backing on release liner
<b>Dimensions:</b>	
3TM Short Run:	1.80 x 0.80 x 0.10 in.
3TMDUO:	3.90 x 0.80 x 0.10 in.
3TMLR Long Run:	3.90 x 0.80 x 0.10 in.

**3TM RUN-OUT TIME\* COMPARISON CHART**

Part Number	Response Temperature	Window #1	Window #2	Window #3
<b>3TM-18C</b>	-18°C/0°F	<1 hour	3 hours	12 hours
<b>3TM0C</b>	0°C/32°F	2 hours	12 hours	48 hours
<b>3TM+3C</b>	3°C/38°F	2 hours	12 hours	24 hours
<b>3TM+5C</b>	5°C/41°F	<30 minutes	2 hours	8 hours
<b>3TM+8C</b>	8°C/46°F	2 hours	12 hours	48 hours
<b>3TM+10C</b>	10°C/50°F	2 hours	12 hours	48 hours
<b>3TM+20C</b>	20°C/68°F	2 hours	12 hours	48 hours
<b>3TM+25C</b>	25°C/77°F	<30 minutes	2 hours	8 hours
<b>3TM+30C</b>	30°C/86°F	<30 minutes	2 hours	8 hours
<b>3TM+37C</b>	37°C/99°F	<30 minutes	2 hours	8 hours

**3TMDUO RUN-OUT TIME\* COMPARISON CHART**

Part Number	Response Temperature	Window #1	Window #2	Window #3	Window #4 34°C Temp Spike
<b>3TMDUO+10/34</b>	10°C/50°F	3 days	8 days	14 days	30 minutes

**3TMLR RUN-OUT TIME\* COMPARISON CHART**

Part Number	Response Temperature	Increment #1	Increment #2	Increment #3	Increment #4	Increment #5
<b>3TMLR+10/7</b>	10°C/50°F	12 hours 0.5 days	30 hours 1.25 days	60 hours 2.5 days	110 hours 4.5 days	168 hours 7 days
<b>3TMLR+31/7</b>	31°C/88°F	12 hours 0.5 days	30 hours 1.25 days	60 hours 2.5 days	110 hours 4.5 days	168 hours 7 days

\*Time required for all windows to turn red when the tag is exposed to a constant temperature of 2°C above the response temperature. The higher the exposure temperature is above the response temperature, the faster the run-out time.

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