

the smart way to measure time & temperature

# Timestrip® Seafood

A time-temperature solution perfect for Reduced Oxygen Packaging



actual size (19mm x 35mm)

As Clostridium botulinum (C.Botulinum) is known to form toxins much faster above  $3^{\circ}$ C / $37^{\circ}$ F it is important to the Seafood industry to know if shipments have been exposed to temperatures higher than  $3^{\circ}$ C/ $37^{\circ}$ F, and for how long.

The Timestrip<sup>®</sup> PLUS Seafood indicator is a simple, cost effective tool;

- It provides a record of temperature compliance that can be instantly seen and understood by seafood handlers.
- It offers guidance on how long any temperature abuse has lasted.
- It can be used as traceable evidence for an audit of supply chain dangers within a Hazard and Critical Control Point (HACCP) plan.

#### A convenient indicator with push-button simplicity

Timestrip indicators are small labels which can be stuck directly onto seafood packaging, crates or a carrying card. They can be stored inert at room temperature and then activated without pre-conditioning when required.

When activated by pushing the button, 'on' is revealed to confirm it is correctly armed. Temperature abuse is then signalled if the 2 hour breach window turns from white to blue. If the breach lasts 4 hours or more the second breach window will also turn from white to blue.

### How it Works

Each Seafood indicator contains a blue coloured solid that will melt and travel at a known rate through a white membrane if the temperature breaches 3°C/37°F. The time elapsed from the breach is indicated by blue in the 2 hour window or blue in the 4 hour window.





# Benefits & Features

Flexible Use and Storage	Ilnert until activated so it can be stored at ambient temperatures and activated when required in the field.
Reliable Evidence	Single use, irreversible and the tempera- ture monitor is accurate to within +/-1°C/2°F.
Targeted Decision Making	Small, light and cost effective enough to support the monitoring of many packs within a consignment; pockets of temperature abuse can be identified.
Easy to Read	Visually clear and easy to interpret so handlers can quickly and confidently recognise temperature abuse.
Quality Assured	Manufactured to ISO9001:2008, process and batch validated, and each indicator has a unique serial number for traceability. It is patented, safe and disposable.
Cost	A low cost solution that requires no power. It is a cost effective and practical replace- ment for data loggers.

Temperature not to exceed C   Upon receipt of shipment, immediately op and inspect TimestripPlus™ indicator.   If TimestripPlus™ temperature indic has passed the hour mark:   1. Do not refuse shipment   2. Make a notation on delivery receipt & it   3. Complete Inspection Report & file with   Date Inspected: Time:   Date Inspecter: PRIME NAME   Carrier: ■   Inspection Report	cator BLUE dye	EXAMPLE Construction Constru
		visit: www.timestrip.com



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# Specification

A full technical Specification, MSDS, Testing Protocol and FAQ sheet are available.

Туре	Irreversible, single use
Activation Feature	Manual button push.
Indication	Visual display.
Monitored Tempera- ture	3°C/ 37°F
Accuracy	$\pm 1^{\circ}\text{C}$ for temperature and +/-15% at isothermal temperature for time
Quality Assurance	Produced under ISO9001:2008
Size	35mm x 19mm

# Shipping & Handling

Recommended Storage	Room temperature: 22°C/72°F at 20-80% humidity. Cool, dark environment.
Packaging	100 indicators per box Labelled with expiry and batch number
Shipping Package Requirements	No special requirements as inert until activated.
Protection	Splash proof
Traceability	Unique serial number on each indicator
Shelf Life	Pre-activation: 2 years from manufacturing date. Post-activation: 1 year or until breach indicated

# Our Product Range

Timestrip<sup>®</sup> also makes times indicators ranging from 5 minutes to 2 years.

Timestrip<sup>®</sup> PLUS indicators measure elapsed time at a specified temperature. The range spans -20°C to +38°C (-4°F to 100°F).

Four specialist temperature indicators are available: Seafood, Food, Blood Temp 10 (for blood bags), and Duo (for vaccine monitoring).

Please contact us for distributor details. Many indicators are held in stock, some are subject to minimum order sizes and full customization is possible.

Detailed information for all our products is available on our website www.timestrip.com

## How to Use

### Storage

Seafood is inert prior to activation so shipping and storage can be at room temperature or lower.

Timestrip<sup>®</sup> PLUS Inactive

Prior to activation, all the windows on the indicator are white.

#### 1. To Activate

Activation is only possible when the surrounding temperature is above the START temperature of  $3^{\circ}C/37^{\circ}F$ .

To activate fully squeeze the blister on the indicator at room temperature, no pre-conditioning is required. The first window will turn blue and display 'ON'. In the event that 'ON' doesn't appear immediately, re-squeeze the blister firmly.



### 2. Apply to Product

Shortly after activating, place the indicator at or below the STOP temperature of  $0^{\circ}C/32^{\circ}F$  for a minimum of 1 Hour. The blue liquid will solidify.

If the environment around the Seafood is already at or below the STOP temperature of 0°C/32°F, the indicator can be directly applied to the Seafood packaging, crate or a carrying card.

#### 3. How it Works

The blue dye will move across the windows when the temperature goes above  $3^{\circ}C/37^{\circ}F$ .



#### 4. Understanding What Happened in Transit/ Storage

If both the 2 & 4 hour time windows are white, then the shipment hasn't been exposed to temperatures of above  $3^{\circ}C/37^{\circ}F$  or for less than 2 hours.

If the 2 hour window is blue, exposure above 3°C/37°F occurred for at least 2 hours but less than 4 hours prior to viewing.

If the 4 hour window is blue, exposure above 3°C/37°F occurred at least 4 hours prior to viewing.