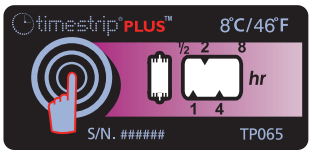
timestrip®

the smart way to measure time & temperature

Timestrip® PLUS

'Time at a temperature' indicators



actual size (19mm x 40mm)

How long has my product been kept above its maximum recommended storage temperature?

What if you need to know how long your product has spent above a defined temperature? What if your product can tolerate a number of exposures to an elevated temperature provided they are short lived?

Timestrip® PLUS indicators provide simple, quick and cost effective answers. They record elapsed time at or above a specified threshold temperature; for example at 8°C/46°F for up to 8 hours.

Timestrip® PLUS are small and self-adhesive so they can be attached directly to a product, package or shipment. They can be stored inert at room temperature and then activated without pre-conditioning when required.

Benefits & Features

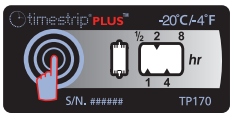
Flexible Use and Storage	Inert until activated so it can be stored at room temperature and activated when required in the field. Products with thresholds from -20°C to +20°C can be activated at room temperature and don't need any pre-conditioning. Products with thresholds of +25°C or above need preheating to activate.
Reliable Evidence	Single use, irreversible and 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. Clear and visible monitoring may also encourage a greater duty of care.
Quality Assured	Manufactured to ISO9001:2008, and process and batch validated. Each indicator has a unique serial number. It is patented, safe and disposable.
Cost	A low cost solution that requires no power. It is a cost effective and practical replacement for data loggers.

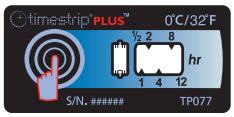
The Standard Range

From -20°C / -4°F to +38°C / 100°F. The most popular temperatures can be ordered from distributor stocks and the rest can be ordered subject to minimum volumes.

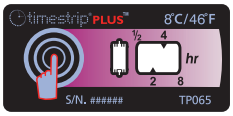
Stock Products:

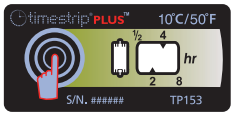
-20°C, 0°C, 8°C, 10°C, 25°C
(-4°F,32°F,46°F, 50°F, 76°F)



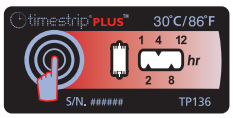


Frozen -20°C, 0°C





Cold Chain 8°C, 10°C



Ambient/High 25°C 30°C

MOQ Products:

-14°C, 3°C, 5°C, 12°C, 18°C, 20°C,
30°C, 34°C, 38°C
(7°F, 37°F, 41°F, 54°F, 64°F,68°F,
86°F, 93°F, 100°F)

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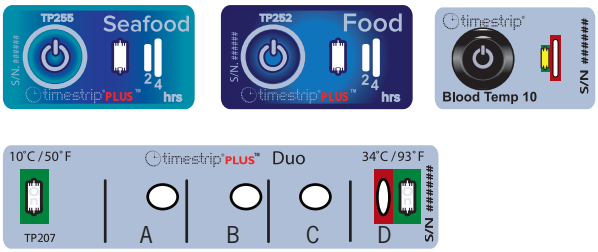
The Specialist Range

Four temperature indicators for specific sectors and uses are available from stock: Seafood, Food, Blood Temp 10 for blood bags and Duo, a 2 in 1 indicator for vaccines.



Standard Application

Timestrip® PLUS are supplied with an adhesive backing so they can be stuck directly onto product packaging or onto a carrying card which clearly explains to the end user how to interpret the display windows and what action to take. The customer example shown can be customised to suit.

Our Customers

Timestrip® PLUS are used by leading brands, from consumables to industrial and analytics to medical.

- Farmotag use a (+20°C) /2 hour indicator for a parenteral feeding test kit
- Xeikon use a +35°C /100 hour indicator for laser jet toner cartridges
- Minafarm use a +20C/48 hours indicator integrated into Reiferon pharmaceutical packaging
- British Ministry of Defence use an 8°C for monitoring blood bags in the field
- British National Health Service (NHS) use an 8°C for drugs that get dispensed into the ward
- Choice Lunch use a Timestrip® PLUS Food indicator to monitor the temperature of school pre-packed lunch deliveries
- Siemens use an 8°C for monitoring reagents

Customising Timestrip® PLUS

Subject to minimum order size, minimum technical specifications and additional cost, we can customise Timestrip® PLUS to suit your needs.

- Different time markers
- New ascending temperature thresholds
- Customised print colours & logos
- Integration into devices
- Factory production line application

Specification

For every indicator, a full technical Specification, MSDS, Testing Protocol and FAQ sheet are available.

Type	Irreversible, single use
Activation Feature	A manual activation button on the top – the 'On' window turns blue to confirm it is armed.
Indication	A blue colour appears in the viewing window if a breach of the threshold temperature has occurred. The duration of one or more breaches is shown by how far the blue colour has progressed along the time markers.
Accuracy of Temperature	+/-1°C/2°F
Accuracy of Time	+/- 15% in isothermal conditions
Quality Assurance	Produced under ISO9001:2008
Size	40mm x 19mm

Shipping & Handling

Recommended Storage	Room temperature: 22°C/72°F at 20-80% humidity. Cool dark environment
Packaging	100 indicators per bag 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 shipping for most lines, otherwise 2 years from manufacturing date. Active life: up to 1 year.

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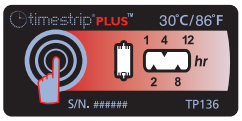
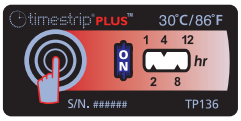
How it Works

All Timestrip® PLUS indicators work from three principles. A mixture will melt from solid to liquid form when an ascending temperature threshold is breached and return to solid form if the temperature falls again to its freeze point (STOP temperature). When in liquid form, the mixture will move laterally through a porous membrane at a known rate. The progress of the liquid will be visible through a viewing window.

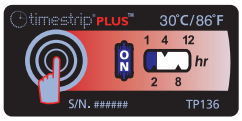
Once any Timestrip® PLUS is activated, if the temperature being monitored remains below the STOP temperature, the blue colour will not move. If the threshold is breached, the blue colour will progress to the viewing window with the time markers. Each movement is irreversible so the cumulative time of any temperature breaches is shown by how far the blue colour has moved along the time markers.



Inactive
Not yet activated



Activated
Threshold not yet exceeded



Activated
Threshold temperature exceeded for more than 2 hours.

Our Full Range

Timestrip® also makes a range of time indicators which act as reminders for time dependent actions. Full information is available on our website. Please contact us for distributor details.

Contact us to see how Timestrip® indicators can support your business.

Activation Instructions

Storage- Inactive

Timestrip ® PLUS is inert prior to activation so it can be stored at room temperature.

Activation Conditions

Activation is possible when the temperature is above the threshold temperature.

If stored and then activated at room temperature:

- No pre-conditioning is required for Timestrip® PLUS of -20°C to +20°C.
- Warming to 1°C above the threshold is required for Timestrip PLUS of +25°C or more.

To Activate

When the button is fully squeezed a blue activation line appears in the first window and ON is revealed. If this does not happen, check you are activating at a temperature 1°C above the threshold and re-squeeze the button fully.

Within 5 minutes of activation you must place the Timestrip® PLUS below its STOP temperature. If the carrying card or product to be monitored is already at or below the STOP temperature the Timestrip® PLUS can be stuck directly to it after activation. Otherwise, chill the indicator at the STOP temperature for up to an hour before applying to avoid premature indication.

Review

As long as the product or carrying card is maintained under the threshold temperature the second window with the time markers will remain white. If a breach occurs, the blue colour will progress to the second window and the duration of the breach can be read using the time markers. The progress of the blue colour is irreversible but it will stop moving if the temperature falls again to the STOP temperature. The time markers show the cumulative time of all breaches.