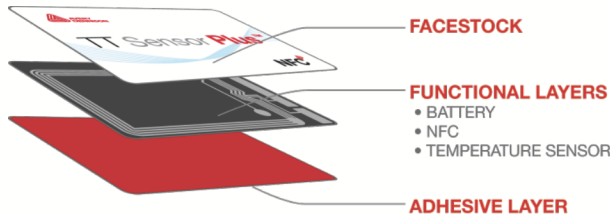


TT Sensor Plus™



A product that tracks the temperatures an item is exposed to throughout its supply chain journey. Based on the temperatures the product is exposed to, TT Sensor Plus can indicate if the item is suitable for its intended use. The data is stored in an NFC chip and can be uploaded to a smartphone at anytime, anywhere throughout the supply chain.

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Statement of Practical Use:

All pressure-sensitive materials should be tested thoroughly under end-use conditions to ensure they meet the requirements of the specific application.

Product Information

Functionality:

TT Sensor Plus incorporates sensor functionality and temperature data logging capabilities in a low-cost, disposable label solution. When affixed to a product or container, the thin, flexible label can be programmed to record the temperature history of goods at user defined intervals during shipment. Once a shipment reaches its destination, the label's temperature data can be downloaded and reviewed from an Android™ smartphone or tablet with the easy-to-use TT Sensor Plus mobile app.

Applications:

- Pharmaceutical and medical
- Food and beverage
- Chemicals and polymers
- Other temperature-sensitive goods

Adhesive Characteristics & Performance::

A general purpose, acrylic-permanent adhesive with good tack to low surface energy substrates. It is compliant to US FDA 21 CFR 175.105 (adhesive) for food packaging and processing as well as ECC 88/378/EEC, CEN EN71, Part 3.

- Minimum application temperature: +5°C
- Service temperature range: -15°C to +90°C

- Peel adhesion after 24 hour dwell at room temperature
- Stainless steel: 10.9 (lb)
- Corrugated paper: 1.82 (lb)

Sustainability:

TT Sensor Plus labels are powered with a thin, flexible, disposable battery technology, which is:

- RoHS certified
- REACH compliant
- EU Battery Directive compliant

Components:

- High-frequency antenna
- Embedded temperature sensor
- Real-time clock
- Temperature alarm
- Data storage

Operating Capabilities:

- Operating temperature range: -20°C to +50°C
- Shelf life: >1 year

Product Temperature Integrity:

- Temperature Accuracy:
 - ±0.5° C at -10 to +20° C typical
 - ±1.5° C at -20 to -10° C and +20 to +50° C
- Configurable temperature alarming parameters

Wireless Communication Compliance:

- Near Field Communication (NFC)
- NFC-enabled Android smartphones and tablets
- Operating frequency: 13.56MHz
- ISO 15693/NFC-V compliant