



Data Sheet

PosiTag Heat Seal UHF RFID Tag

*Versatile RFID tags
engineered for ease
of application*

The **PosiTag Heat Seal UHF RFID Tag** is a durable, high-performance RFID solution designed for seamless integration into industrial laundry operations. Specifically engineered to withstand the rigors of frequent washing, high temperatures, and intense chemical exposure, this tag ensures accurate, long-lasting tracking for linens, uniforms, and other textiles. The heat-seal application provides a secure, reliable bond.



PRECISION RFID THAT STANDS UP TO THE HEAT

The Positag Heat Seal UHF RFID Tag is uniquely designed to balance size and performance in RF reading. Featuring a compact UHF device paired with an embedded secondary antenna made from a flexible thread, the PosiTag Heat Seal UHF RFID Tag stands out for its innovation. Additionally, the Heat Seal Tag features a

slim, flexible profile that attaches easily to various textiles, from linens and uniforms to more delicate items, making it an ideal choice for high-volume laundry operations. When paired with RFID systems like the Lightning Portal, the tag delivers accurate, high-speed tracking, enhancing inventory accuracy and minimizing textile losses.

The Positag Heat Seal UHF RFID Tag can be easily affixed to textile products via standard sewing processes, delivering maximum versatility.

**Heat sealing should be performed on clean, dry items. Barrier textiles need extra attention (very thin layer on top of textile which could decrease patching adhesion). Due to the nature of the textiles, i.e. developed to prevent matter from passing through it, patching the transponder can be an issue. In that case, an extra cycle to pre-heat the barrier textile for 7 to 10 seconds can amend any adhesion issues. Position the transponder patch immediately after pre-heating and seal it in place. The final adhesion is dependent on your material. Please validate your parameters with your own machine and material before using.*

Specifications

Thickness & Weight	< 0.5mm thick, except on chip area < 2mm (Custom dimension on request). ~0.6g weight.
Dimensions	58 mm W x 20 mm H (+/-1 mm)
Temperature	Storage: -40°C / +120°C
Operating	Patching (max): 204°C (399°F), 12 seconds, 5 bars Washing: 90°C (194°F), 15 minutes, 200 cycles Drying: 180°C (356°F), 3 minutes, 200 cycles Tunnel Finisher: 170°C (338°F), 10 minutes Autoclave: 3.2bar, RH 85%, 5min @ 134°C (273°F)
Thermal Patching Process	Recommended: 204°C/12s/5bars, or 210°C/10s/5bars*
Chemical Resistance	Resistant to all common chemicals in the washing process
Lifecycle	200 wash cycles or 3 years from shipping date (whichever comes first)
Frequency Carrier	860-960 MHz, Compatible in EU, US, ASIA
Read Range	Up to: 7 M, Depending on reading station
Multiread	Up to: 800, Depending on reading station
EPC Memory	96 bits Pre-encoded
Data Retention	50 years, Tamb < 55°C
Write Endurance	100,000 cycles, Tamb < 55°C
ESD Immunity	+/-2 kVolts, (H.B.M)
Other Features	Autotune function, FastID, TagFocus, Monza Self serialization, Passwords lock/Kill/Access—64 bits

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