Description

Special washable label for returnable plastic containers with great performance even when being close to challenging materials.

Electrical specifications

Device type
UHF RFID / EPCglobal Gen2v2

Operational frequency
Global 865-928MHz

IC type
Impinj M780™

Memory configuration
EPC 496 bit; User 128 bit; TID 96 bit

EPC memory content
Unique random 96bit EPC in every label

Read range (2W ERP)*
- On plastic up to 23 m / 75 ft
- On cardboard up to 20 m / 65 ft

Applicable surface materials*
Non-metallic surfaces. Works well also on boxes where content varies from fruits, vegetables or other groceries to liquid bottles and utilities.

* Read ranges are theoretical values that are calculated for non-reflective environment. Different surface materials may influence performance.

Personalization options

Pre-encoding
Customer-specific encoding of EPC or user memory. Locking permanently or with password.

Customized printing
Customer-specific layout including logo, text, numbers, barcodes etc.

Over-lamination
Pre-printed labels may be protected with optional protective PET film on top of the label

Mechanical specifications

Tag materials
Printable white PET, resin ribbon recommended

Background adhesive
High performance acrylic adhesive specifically for low surface energy plastics

Weight
1 g

Delivery format
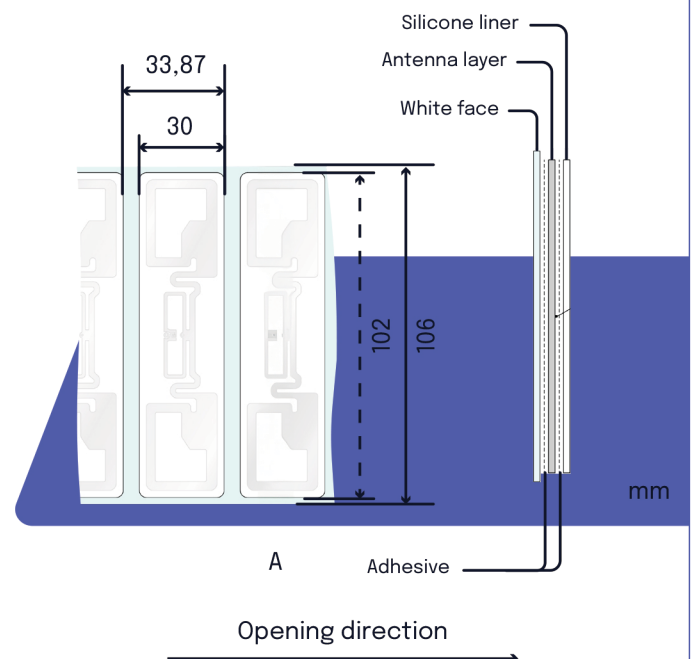2000 pcs on reel

Pitch on reel
33,87 mm / 1.33 in

Reel core inner diameter
76 mm / 3 in

Tag dimensions
102 x 30 x 0,2 mm / 4.01 x 1.18 x 0.01 in

Opening direction

Environmental resistance

Operating temperature
–35°C to +85°C / –31°F to +185°F

Ambient temperature
–35°C to +85°C / –31°F to +185°F

IP classification
IP68, tested 5 hours in 1m deep water

Washing resistance
Tolerates industrial washing processes. Tested according to IPX9K with water at 60° angle, 80-100bar, and 80°C. Water flow rate 14-16l/min.

Chemical resistance
No physical or performance changes in:
- 168h Salt water (salinity 10%) exposure
- 168h Motor oil exposure
- 168h Sulfuric acid (10%, pH 2) exposure
- 24h NaOH (10%, pH 13) exposure
- 20min Acetone exposure

Storage condition
1 year in +20°C / 50% RH (shelf life for adhesive)

Expected lifetime
Years in normal operating conditions

Values in the table are the best recommendations; resistance against environmental conditions depends on the combination of all influencing factors, exposure duration and chemical concentrations. Thus, product's final suitability for certain environmental conditions is recommended to be tested. Contact Beontag for more specific information.
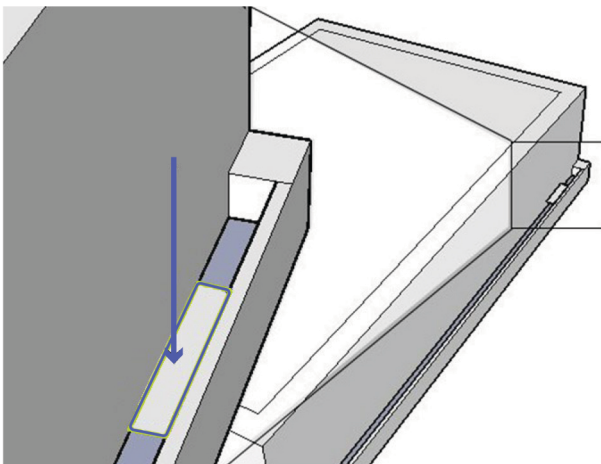
Installation instructions
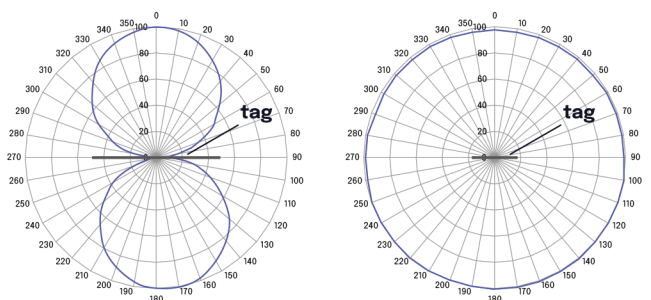
Tag polarization

While planning the installation, most recommended location for the Beontag Carrier KLT label is in a position, where the structure of the identified asset provides protection against mechanical stresses such as impacts or jet streams. There is no need for line of sight between reader and label so it can be installed for example like shown in picture below.

Ideal installation conditions are +20°C (+68°F) / 50% RH. For exceptional conditions, please contact Confidex. Adhesive of the label will provide best adhesion in 24 hours after the installation. Bond strength can be improved with firm application pressure. Always clean and dry the surface for obtaining the maximum bond strength. During attachment to the identified asset, please avoid touching the background adhesive.
If the location on the asset needs to be changed, please use a new tag instead of re-placing the used one; the adhesion will suffer from the re-placement. Minimum bending diameter of the Beontag Carrier KLT is defined to be 50mm. Do not bend the label below the limit. Never touch the IC location. IC is a sensitive electrical component and can be damaged if unexpected pressure is applied on the it.

Radiation pattern

Order information

Product number: **3004810**
Product Name: **Beontag Carrier KLT M780**

For other versions, additional information and technical support please contact Beontag.

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About Beontag

From the science of graphic and label materials, RFID and wireless IoT enablers, we create solutions across the value chain to deliver digital transformation for businesses around the world.

Sustainability is at the core of what we do and we strongly believe that by substituting non-renewable materials and innovating through more sustainable and renewable products, we act as an ESG enabler for our customers' value chain.

Beontag is one of the world's leading providers of RFID and wireless IoT solutions, being present in more than 40 countries with 7 R&D centers and 2,000 employees, in constant development of technological and sustainable solutions designed to connect items, and gain efficiency and end-to-end traceability

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