



Description

Microwave oven and dishwasher compliant label for reusable packaging.



Electrical specifications

Device type

RAIN RFID / EPCglobal Gen2v2

Operational frequency

Global 865-928 MHz

IC type

NXP UCODE 9™

Memory configuration

EPC 96 bit; TID 96 bit

EPC memory content

Unique random 96 bit EPC in every label

Read range (2W ERP)*

On plastic up to 9 m / 30 ft

On glass up to 5 m / 16 ft

On ceramic plate up to 7 m / 23 ft

Applicable surface materials*

Non-metallic surfaces

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



Mechanical specifications

Label surface

Printable white PET, resin ribbon recommended

Background adhesive

High performance acrylic adhesive specifically for low surface energy plastics

Weight

0,1 g

Delivery format

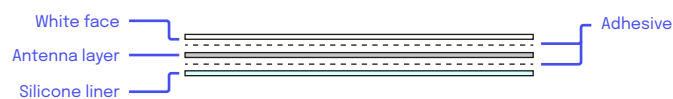
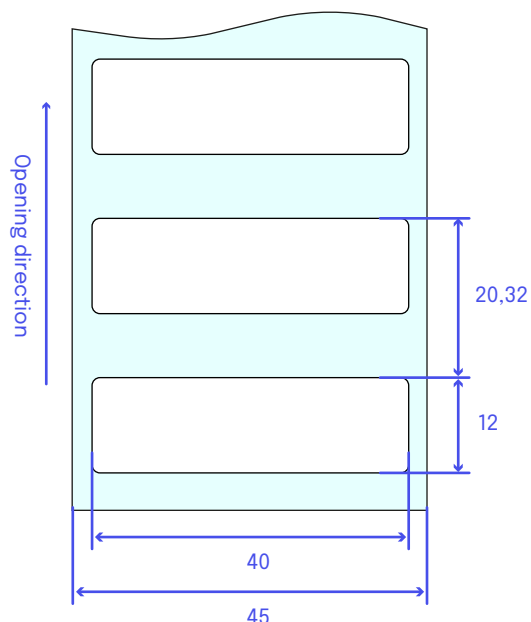
2000 pcs of good labels on reel, bad ones marked with "XXX" printing.

Reel core inner diameter

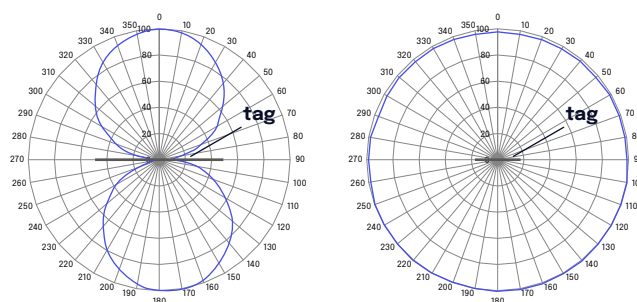
76 mm / 3"

Tag dimensions

40 x 12 x 0,2 mm /
1.57 x 0.47 x 0.01"



Radiation pattern





Environmental resistance

Operating temperature

-40°C to +85°C / -40°F to +185°F

Water resistance

IP68, tested for 5 hours in 1m deep water

Dishwasher resistance

Tested up to 50 cycles according to EN 12875-1 with controlled detergents and water temperature between 55°C and 75°C.

Microwave oven resistance

Tested up to 50 cycles with 1800W and 3.5min per cycle

Storage condition

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

Expected lifetime

Years in normal operating conditions

Environmental values are the best recommendations; resistance against different 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.



Installation instructions



When attaching the label ensure the following:

- Only use microwave oven compatible containers
- Select a smooth surface without uneven areas below tag
- Avoid touching the background adhesive and IC location

Ideal application conditions are +20°C (+68°F) / 50% RH. Final bond strength is achieved in 24 hours.

Minimum bending diameter of the label is 50mm. Do not bend the label below the limit.

Beontag recommends each user to make their own tests to verify the product's suitability for their use case. It is not recommended to heat up empty containers in a microwave oven with the Beontag Carrier eWave label attached to them.



Order information

Product number: **3005394**

Product Name: **Beontag Carrier eWave U9**

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



Personalization options

Pre-encoding

Customer-specific encoding of EPC memory.

Customized printing

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

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U.S. Patent No. 12,236,304**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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