Product Datasheet
BEONTAG ESD ON METAL LABEL

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Description

Optimized for ESD plastics with excellent performance and durability

Electrical specifications

Device type
UHF RFID / EPCglobal Gen2v2

Operational frequency
ETSI 865 – 869 MHz
FCC 902 – 928 MHz

IC type
Impinj Monza 4E™

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

EPC memory content
Same EPC by default

Applicable surface materials*
All surfaces, optimized for ESD plastics

Attachment on curved surface*
Label can be attached on a curved surface. Check installation instructions for more details.

Read range (2W ERP)*
See table below. Note that ETSI tag is readable also on FCC frequency band.

Surface	On ETSI frequency	On FCC frequency	
	ETSI Tag	ETSI Tag	FCC Tag
Metal	9m / 30ft	4m / 13ft	9m / 30ft
ESD Plastic	7m / 23ft	4m / 13ft	7m / 23ft
Plastic	4m / 13ft	2m / 7ft	6m / 19ft
Liquid container	5m / 16ft	2m / 7ft	5m / 16ft

* Read ranges are theoretical values that are calculated for non-reflective environment. Different surface materials may have an effect on performance.

Mechanical specifications

Label surface
White PET with good printability. Resin ribbon recommended for best durability

Background adhesive
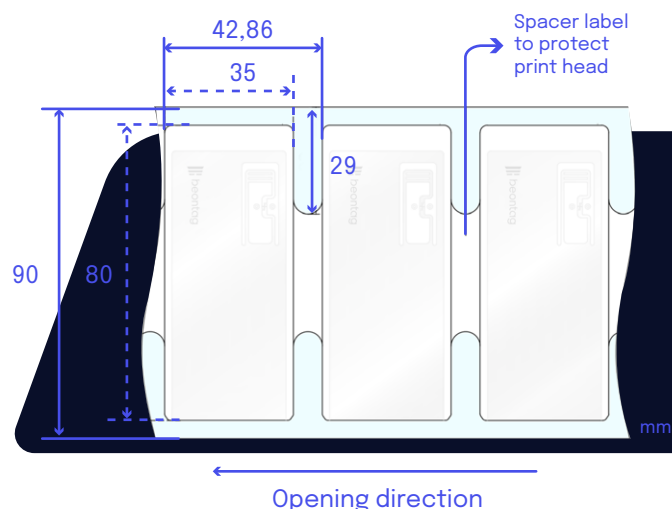High tack adhesive with excellent adhesion to all surfaces including ESD plastics

Weight
1,5 g

Delivery format
300 pcs good labels on reel, bad ones marked with "XXX" printing.

Pitch on reel
42,86 mm / 1.67"

Reel core inner diameter
76 mm / 3"

Tag dimensions
80 x 35 x 1.2 mm / 3.15 x 1.38 x 0.047"

Spacer label to protect print head

Opening direction

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Environmental resistance

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

Peak temperature
+110°C / 230°F for 10min

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

Water resistance
IP68, tested for 5 hours in 1m deep water

Washing resistance
Tolerates industrial washing with standard solvents. Washing process should be tested in final application. Printing durability can be improved with optional protective film.

Chemical resistance
No physical or performance changes in:
· 168h Sulfuric acid (10%, pH 2) exposure
· 168h Motor oil exposure
· 168h Salt water (salinity 10%) exposure
· 30min NaOH (10%, pH 13) exposure

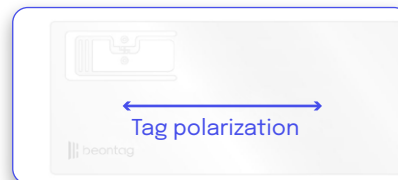**Storage condition**
1 year in +20°C / 50% RH

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.

Printer Compatibility

The Beontag ESD On Metal Label is tested and verified to work with the following printers:

· Zebra ZT411 On Metal
· Zebra ZT410 Silverline
· Sato CL4NX
· Printronix Auto ID T6000e
· Printronix Auto ID T4000

For printing instructions please contact Beontag.

Installation instructions

Tag polarization

When attaching the label ensure the following
· Select a smooth surface without uneven areas below tag
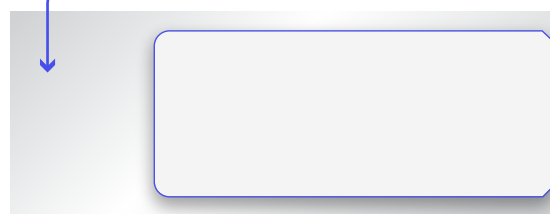· Avoid touching the background adhesive and IC location

When mounting the label with its adhesive, clean and dry the surface for obtaining the maximum bond strength. Typical cleaning solvents are heptane or acetone for oily surfaces or isopropyl alcohol for plastics. Do not use household cleaning solvents that contain oils. Carefully read and follow the manufacturer's precautions and directions for use when working with solvents.

Ideal application temperature is from +21°C to +38°C (+70°F to +100°F). Bond strength can be improved with firm application pressure and moderate heating up to +54°C (+130°F). Application at temperatures below 10°C (50°F) is not recommended.

Optimal read range is achieved when label is attached close to the edge of metal asset, like shown in below picture.

Leave metal to this side of label

White face wrapped over this side

Smallest recommended bending diameter of the **Beontag ESD On Metal Label** is 100mm. For optimal performance please bend the label in the orientation shown below.

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Order information

Product number: **3003354**   Product name: **Beontag ESD On Metal Label 80x35mm M4E ETSI**

Product number: **3003359**   Product name: **Beontag ESD On Metal Label 80x35mm M4E FCC**

Protective over-lamination: Contact Beontag for item details.
For 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

CONTACT US FOR
MORE INFORMATIONS:
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