



Steelwave Classic™ Personalization Kit

Thin all-surface-tag solution for returnable transit item tracking with extreme performance.



Electrical Specification

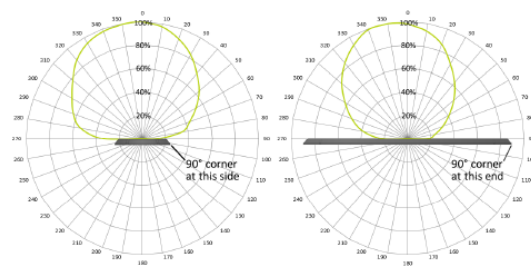
- **Device type**
 - RAIN RFID / EPCglobal Gen2v2
- **Operational frequency**
 - ETSI 865 - 869 MHz
 - FCC 902 - 928 MHz
- **IC options and memory configurations**
 - Impinj M780™ - EPC 496 bit; User 128 bit; TID 96 bit
- **EPC memory content**
 - EPC 96/128 bit; User 32/64 bit; TID 96 bit
- **EPC memory content**
 - Unique number encoded as a default
- **Read range (2W ERP)***
 - M780
 - On metal up to 20 m / 65 ft
 - Off metal up to 14 m / 46 ft
- **Applicable surface materials***
 - All surfaces.

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

Mechanical Specification

- **Mounting plate materials**
 - High quality engineering plastic (Pantone 433U).
- **Background adhesive**
 - High performance acrylic adhesive specifically for metal and painted metal surfaces
- **Weight**
 - 12 g
- **Delivery format**
 - Plastic part as single (50pcs per box)
 - Labels separately on reel (1000pcs per reel)
- **Mounting plate dimensions**
 - 115 x 30 x 3,9 mm / 4.53 x 1.18 x 0.15 in
- **Label reel width**
 - 112mm

Radiation Patterns



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
- **Water resistance**
 - IP68
- **Washing resistance**
 - Tolerates industrial washing with standard solvents. Washing process should be tested in final application.
- **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
 - 1h NaOH (10%, pH 13) exposure
 - Acetone should be avoided
- **Storage condition**
 - 1 year in +20°C / 50% RH (shelf life for adhesive)
- **Expected lifetime**
 - Years in normal operating conditions

Values 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 Zebra for more specific information.

Product Overview

RFID labels can be printed and encoded with Zebra RFID printers and must be applied on the plastic part before taken into use. Label is shaped to allow attachment only in one direction. Follow the installation instructions when attaching the RFID label to plastic part as described below.

Installation Instructions

Steelwave Classic™ polarization is along the longest dimension of the tag like shown below.

- **When attaching the tag ensure the following**

- Select a smooth surface without uneven areas below tag
- Avoid touching the background adhesive and IC location

When mounting the tag with its adhesive background, clean and dry the surface for obtaining the maximum bond strength. Typical cleaning solvents are heptane or isopropyl alcohol. 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 +16°C to +38°C (+60°F to +100°F), bond strength can be improved with firm application pressure and moderate heating from +38°C to +54°C (+100°F to +130°F). Application at temperatures below 10°C (50°F) is not recommended. If application is done at temperatures below 10°C (50°F) surface must be extremely clean, dry and it has to be warmed before attaching the tag to achieve best possible adhesion. Keep the tags in warm before attaching.

Order Information

- **Zebra part number:** 10041054
- **Product name:** Steelwave Classic™ M780 ETSI Personalization Kit
- **Zebra part number:** 10041055
- **Product name:** Steelwave Classic™ M780 FCC Personalization Kit

Industry Compliance



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