

EnduraGuard 4000D

Long-lasting mobile barcode printing for demanding applications

Zebra's EnduraGuard 4000D label is a robust solution for labeling items outdoors. The label uses a newly developed synthetic material and unique patent-pending coating which achieves durability typically only possible with thermal transfer labels. The labels can be printed on-the-go using our direct thermal mobile printers, enhancing labeling accuracy and streamlining workflows. EnduraGuard 4000D provides robust resistance to UV radiation, chemicals, and various environmental factors, ensuring dependable performance even in demanding conditions for a wide range of outdoor applications.



Accelerating tasks

When you label items with barcodes, you give them a digital voice which empowers your frontline teams to easily capture data, helping them to get more done in less time, optimize inventory, and support intelligent operations.

Safety and the environment front-of-mind

The labels are BPA- and BPS-free to protect the environment and all who will use them: from workers changing rolls and printing and applying labels, to customers who come across labels on goods.

Ready for the elements

The labels withstand exposure to ultraviolet (UV) light, extreme temperatures, as low as -54°C/-65.2°F up to 82° C/180°F, and rain and snow. They can also be used indoors when applications are demanding, such as lab specimen labeling in clinical settings. The synthetic material is resistant to a wide range of chemicals, and because the permanent acrylic adhesive is impervious to the environmental conditions in which labels are applied, they remain strongly bonded.

Convenient, accurate, and productive

With a mobile printer clipped to their belts, your frontline teams can print barcodes at the moment labels are needed. This convenience enhances labeling accuracy and streamlines workflows. Direct thermal technology also lowers the cost of printing. There's no need for users to carry and swap ribbons, or to monitor and replenish ribbon stock, while the labels can be stored at a stable controlled room temperature for up to a year.

Versatile printing

The EnduraGuard 4000D is a highly versatile labeling solution engineered to meet the demands of various outdoor applications, delivering reliable performance across multiple industries. It excels in vehicle labeling applications, streamlining inventory management for sales lots, rental fleets, and auction houses. In the retail sector, it supports asset tracking and pricing in garden centers and DIY stores. For manufacturing environments, the EnduraGuard 4000D empowers frontline teams by accelerating data capture processes, enabling seamless workflows such as work-in-progress tracking and raw material identification.

Specifications

RM Number	10043704RM
Material construction	
Facestock	Glossy white polypropylene film, 3.0 mil (76 microns)
Adhesive	Permanent acrylic adhesive, 0.6 mil (15 microns)
Liner	40# liner, 2.4 mil (61 microns)
Total thickness (+/-10%)	6.0 mil (152 microns)
Environment	Outdoors in direct sunlight up to six months

Recommended printers and ribbons

Printers	Direct thermal printer: use Zebra mid-range, and high-performance printers for optimum results ZQ630 Plus model requires custom firmware
Ribbons	N/A
Adhesive strength	
Corrugate	5 min: 15oz/ in (4N/25mm) 24hr: 19oz/ in (5N/25mm)
Steel	Attraction between adhesive and surface is so great that the facestock rips
Polycarbonate	Attraction between adhesive and surface is so great that the facestock rips
Polyethylene	5 min: 15oz/ in (4N/25mm) 24hr: 35oz/ in (10N/25mm)

Chemical resistance

Weak chemicals

Blood	Test in your application
Body fluid	Test in your application
Salt water	Recommended
Water	Recommended
Window cleaner	Recommended

Moderate chemicals

Alcohol	Recommended
Ammonia	Recommended
Bleach	Recommended
IPA	Recommended

Harsh chemicals

Gasoline	Test in your application
Grease	Test in your application

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Markets and applications

Healthcare

- Laboratory testing

Logistics

- Labeling of packing material including corrugate, plastic, glass, and metal

Retail

- Use in lawn and garden centers and vehicle windshield labeling

Manufacturing

- Work-in-progress labels

Other

- Outdoor labeling, replacement of thermal transfer labeling applications

Extreme chemicals

Acetone	Recommended
IR Reflow	Test in your application
MEK	Test in your application
TCE	Test in your application
Xylene	Recommended

Regulatory and compliance

BPA- and BPS-free. FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier.

Product performance and sustainability

Recommended storage conditions	1 year duration when stored at 68° F to 77° F/20° C to 25° C at 40 to 50% RH
Expected lifespan in application	<p>Up to 6 months' outdoor exposure</p> <p>The background of the label may gradually change color from white to light tan over time when exposed to sunlight. However, it will remain fully scannable and readable.</p>

Footnotes

* Specifications are subject to change without notice.