

THE BENEFITS OF 2D CODES AT A GLANCE

MORE INFORMATION

- + In addition to the GTIN, the best before date, lot/serial number, weight, and much more can be encoded

PROMOTING SUSTAINABILITY

- + Less waste through precise best before date management, recycling instructions, and product lifecycle information

GREATER TRANSPARENCY AND SECURITY

- + Automated recalls, targeted returns management, protection against counterfeits

MORE COMPACT DISPLAY

- + 2D codes are smaller than linear barcodes – ideal for limited space

DIRECT WEB ACCESS

- + With the GS1 Digital Link, information such as recipes, allergens, or sustainability data can be accessed immediately via smartphone



WHAT'S CHANGING

BY THE END OF 2027

All retail POS scanners are expected to be able to process 2D codes in addition to the classic UPC/EAN code; major retail groups have adopted this roadmap. During the transition period, dual labeling will apply.

FROM 2028

Brand owners can decide which code to use. Labeling with a 2D code alone is now possible.

Important:
The GTIN must always be included.



WHATEVER YOUR WORLD LOOKS LIKE, WE MAKE SURE IT'S CLEARLY DEFINED, LABELED, AND UNDERSTOOD.



6180 Danville Road
Mississauga / ON / L5T 2H7
info@webermarking.ca



711 West Algonquin Road
Arlington Heights / IL / 60005
info@weberpackaging.com



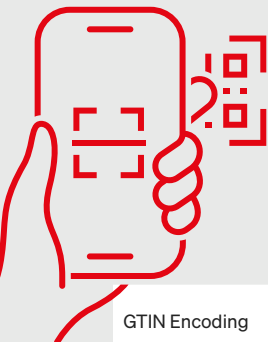
GS1 SUNRISE 2027
START YOUR 2D JOURNEY HERE



WHY THE UPC/EAN CODE NEEDS AN UPGRADE

For decades, the UPC/EAN barcode has ensured reliable processes in retail. But it is increasingly reaching its limits: It can encode only one piece of information—the GTIN. Today, however, consumers and retailers demand greater transparency, traceability, and digital connectivity.

2D codes such as the **GS1 DataMatrix** or the **QR code with GS1 Digital Link** are the answer. They offer space for more data and connect products to the web.



	UPC/EAN Barcode	GS1 DataMatrix	GS1 Digital Link in QR code or DataMatrix
GTIN Encoding	+	+	+
Low space requirements		+	+
Additional data can be encoded		+	+
Best before date check at the checkout		+	+
Enables the use of GTIN for variable quantity consumer units		+	+
Additional information on allergens, ingredients, product videos, etc.			+

BROAD SUPPORT FROM RETAIL, INDUSTRY, AND ORGANIZATIONS

The transition to 2D codes is actively supported by a large number of well-known manufacturers, retailers, and service providers worldwide. They have already implemented successful pilot projects and are impressively demonstrating the potential of the new technology. International organizations such as the **Consumer Goods Forum** are also clearly committed to the transition to 2D codes.

The strong alliance between industry and standardization (GS1) ensures that technical hurdles are overcome, standards are established, and best practices are shared. Supported by regulatory developments such as the **Digital Product Passport (DPP)** in the EU, one thing is clear: the 2D code will become widely adopted – because it meets all relevant requirements of today and tomorrow.

HOW MUCH SPACE IS NEEDED ON THE PACKAGING FOR A 2D CODE?

Type of code	Encoded data	Minimum size	Maximum size
GS1 DataMatrix	GTIN	 (01)09526000134367	 (01)09526000134367
GS1 DataMatrix	GTIN, Expiration Date, Lot Number	 (01)09526000134367 (17)301231 (10)123ABC	 (01)09526000134367 (17)301231 (10)123ABC
QR Code	GTIN, Expiration Date, Lot Number	 https://www.example.com/01/09526000134367	 https://www.example.com/01/09526000134367

The space required for a 2D code cannot be determined in general terms. The size of a 2D code depends on the type of code, the amount of data, the reading environment, and other factors. Therefore, these factors must always be assessed on a case-by-case.

WHO PUTS THE CODE ON THE PRODUCT?

The transition to 2D codes requires not only strategic decisions but also reliable marking technology. The Weber Global Group offers you the right solutions for this – whether inkjet printing or labeling.

Our systems are already capable of integrating GS1-compliant 2D codes precisely, quickly, and reliably directly into your production line. Together with you, we shape the transition to the 2D world – efficiently, future-proof, and tailored to your industry.



