



**DPP-ready with woven labels
with unique QR codes**
following the GS1 standard

The arrival of the Digital Product Passport (DPP) demands innovation, because how do you ensure that each individual item receives its own woven QR code that works according to global GS1 standards? A Serialised Global Trade Item Number (SGTIN) in the QR Code powered by GS1 offers the ultimate solution.

Until recently, producing unique QR codes per item was complex and expensive: each article had to be known in advance and produced individually. This conflicted with the minimum quantities that weaving machines can handle, causing many brands to get stuck. With an SGTIN in the QR Code powered by GS1, you can now mass-produce woven labels and link the correct article data to each item only after production. Because this does not need to be known beforehand, unprecedented flexibility is created, making the DPP accessible for everyone to implement at the item level.

In this onepager, we explain how this innovation not only ensures a massive leap in production efficiency, but also opens the door to full traceability and new commercial opportunities at the item level.

From batch until serial level

Until now, products in the textile industry were primarily identified at the batch level using a GTIN/EAN code. These barcodes contain information such as country, company, size, color, and style, but they do not link this information to a specific item. As a result, there is a lack of traceability, product history, and commercial opportunities at the item or serial level. For example, you cannot see who bought which product, how an item has been used or repaired, or offer personalized promotions.

Data at the serial level is crucial for brands that want to gain more insight, work more efficiently, and operate more sustainably. The solution is the SGTIN: by adding a unique serial number to an existing GTIN, each individual item gets its own unique code. This allows you to not only uniquely identify products, but also reliably track them and link them to valuable data. This opens the door to full traceability, a richer product history, and new commercial opportunities per item.

The advantages of woven QR-codes at item level:

- The label is (professionally) washable and therefore remains scannable until the end of its lifespan (which is not the case with printed labels).
- The higher scan rate creates more interaction with the product, which directly contributes to extra value for your brand.
- The premium appearance of the woven label elevates the brand experience to a higher level.

Every QR code starts with a GTIN linked to a single brand owner. This ensures that:

- Codes never overlap between different brands.
- Every product worldwide receives a unique identity and remains traceable at all times.

How it works

You start with an existing GTIN (EAN) and adds a unique serial number to it, for example 0000000001, 0000000002, and so on. This combination is then converted into a unique 24-character EPC code, such as: GTIN + serial number → 302593D1ED6F80803B9ACA00. Each subsequent code increments automatically, allowing you to generate millions of unique codes. The major advantage of this is that you no longer need to pre-determine codes and labels per item group. Instead, you can, for example, produce 100,000 labels at once and link a unique code per item later in the process. This gives each product its own digital identity, allows you to work according to the GS1 standard, and enables production at scale without high minimum order quantities and production complexity. This makes it possible to use unique woven QR codes in a scalable way that comply with the GS1 standard and can also be used to create a DPP.

Who is GS1?

GS1 helps companies within a supply chain to make clear, unambiguous agreements regarding product identification and making product data accessible. This allows you to reliably record and share product data in a standardized way to operate more efficiently and sustainably. To achieve this, they work closely with companies from many sectors, consultants, solution providers, trade associations, NGOs, and governments.

Ready for the future

With woven QR labels according to GS1 standards, in which an SGTIN is integrated, brands and partners can easily scale up: you move from batch level to item level, from limited to scalable, and from static to smart and digital. This ensures that every product remains scannable until the end of its lifespan and opens the door to applications such as Digital Product Passports, tracking for circularity, authentication, and increased customer interaction. The puzzle of large-scale production and linking unique data to products has thus been solved, creating new opportunities for both logistics and marketing. Want to know how this can further help your brand or collection?

Conclusion

Efficiently producing woven QR labels at item level on a large scale was a puzzle for a long time, but with the serialized GTIN, the puzzle pieces have fallen into place. Linking unique data to products after production offers unprecedented opportunities for both logistics and marketing. Curious about how this capability can impact your brand or collection?

Schedule an appointment to brainstorm about the possibilities: hubert@eelabels.nl / +31(0)628255383

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