

EU-TPD¹ CODING DETAILS

Info for the trade

The product coding obligations mandated by EU-TPD regulation apply to tobacco products placed on the market in EU, and to tobacco products produced in EU, including the ones for export out of EU.

This document aims to explain to the involved trade actors the targeted product coding adopted by the DCTA members² in the frame of EU-TPD, in terms of code structure and data carrier for common packaging levels. This enables those to understand what code they have to “scan” and register, as well as what kind of controls they can integrate in their local tracking system.

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| 1. <u>Unit Level Unique Identifier (UI) (pack, pouch, tin, stand-up bags, etc.)</u> |  |
|--|---|

Code Structure:

The code structure is imposed by the EU-TPD implementing acts (IA)³⁴ and is generated by ID Issuers appointed in their respective country (manufacturing country by default or destination country by derogation).

Note that the unit level unique identifier (UI) structure described below is based on the standards provided in the EU-TPD IA.

| TPD IA article reference | Data Element | Length [No. of chars] | Example | Comment |
|--------------------------|-------------------------------------|-----------------------|-------------|---------------------------------|
| 8.1 a | ID Issuer ID | 3 | “RIT” | Data carrier and human readable |
| 8.1 b | Serial Number | Variable | “qW135tr8b” | Data carrier and human readable |
| 8.1 c | Product Code (business info) | Variable | “x52Ab7” | Data carrier only |
| 8.1 d | Time Stamp⁴ | 8 | “19052111” | Data carrier only |

Code Example:

- Data Carrier: **“RITqW135tr8bx52Ab719052111”**
- Human Readable: **“RITqW135tr8b”**

Code Look & Position:

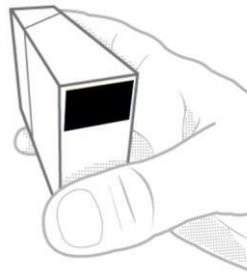
Data carrier is Dotcode or 2D Datamatrix, positioned at the bottom of the pack for cigarettes (see illustration below) and on variable positions for Other Tobacco Products (OTP), such as pouches, tins, standup bags, etc.

¹ Directive 2014/40/EU or the Tobacco Products Directive (TPD).

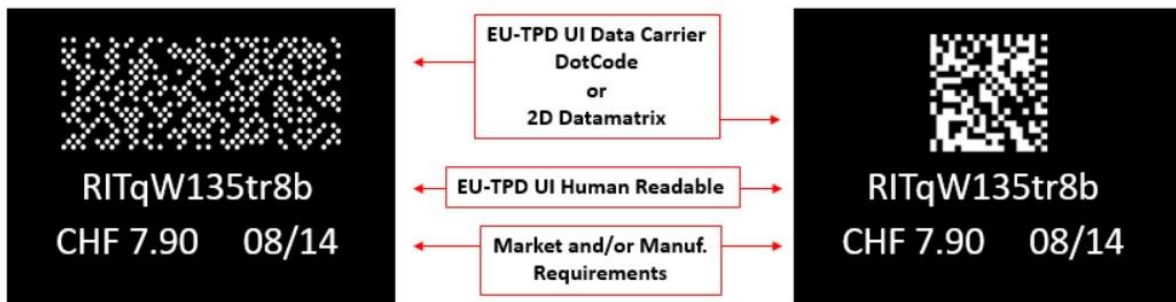
² DCTA refers to the Digital Coding and Tracking Association. The members of the DCTA (www.dcta-global.com) are: British American Tobacco (BAT), Imperial Tobacco Group (ITG), Japan Tobacco International (JTI) and Philip Morris International (PMI).

³ Particularly Commission Implementing Regulation (EU) 2018/574 on technical standards for the establishment and operation of a traceability system for tobacco products.

⁴ The TPD allows the time stamp to be Human Readable only, although every TPD message requires it within the unique identifier message to be transmitted, upUI(L). The DCTA manufacturers will therefore include it in the machine readable code to avoid extra complexity for the trade.



Examples:



Code Processing Capability:

The Unit Level UI contains business specific data (such as product and manufacturing details) which are embedded by the ID Issuer which generated the code in a compressed way (3rd data element of the code).

The trade actors wishing to identify the product out of every Unit Level UI scanned should be able to integrate in their own scanning system’s logic, the ID Issuer’s specific decoding algorithm, relying on the set of “offline flat files” provided by the ID Issuers, as per EU-TPD IA, Article 20.

The trade actors not willing to implement this logic are also able to perform double scanning, relying on an initial scan of the existing EAN/GTIN-8/13 (available on every sellable unit in linear barcode format) to identify the product, and then the Unit Level UI requiring to be recorded and transmitted.

2. Aggregated Level UIs (Outer, Carton, Bundle)



Code Structure:

The manufacturers who are members of the DCTA will be generating by themselves the required Aggregated Level UI compliant with **ISO 15495-4**, which will be applied on each outer unit, fully in data carrier and human readable formats.

Code structure is a **GS1-SGTIN** (Serialized GTIN), including special characters (i.e. <FNC1>) and Application Identifiers (AI) as mandated by the standard, and completed with additional GS1 compliant data elements at the manufacturer’s convenience.

| Data Element | Length [no. of chars] | Example | Comment |
|--------------|-----------------------|---------|-----------------------------------|
| <FNC1> | n/a | n/a | Special character mandated by GS1 |

| | | | |
|----------------------|----------------------|---|---|
| AI 01 | 2 | "01" | AI used as GTIN prefix |
| GTIN-14 | 14 | "04023500715224" | Outer GS1 GTIN GTIN-14 or EAN-13 prefixed by "0" |
| AI 21 | 2 | "21" | AI used as SN prefix |
| Serial Number | Variable (20 max) | "KVVJB497KL07" | Serial Number from GS1's 82 character set |
| <FNC1> | n/a | n/a | Special character mandated by GS1 if the AI 21 is less than 20 characters |
| AI 240 | 3 | "240" | AI used as product code prefix |
| Product Code | Variable (30 Max) | "PRD45678", "FA060408.14", "ManufProduct12", etc. | Product Code as defined by the manufacturer |

Optional example:

| | | | |
|-------------------------|----------------------|--------------|--|
| <FNC1> | n/a | n/a | Special character mandated by GS1 if further AIs are included and the (240) is less than 30 characters |
| AI 10 | 2 | "10" | AI used as production batch prefix |
| Production Batch | Variable (20 Max) | "21ABCDEFGF" | Production Batch as defined by the manufacturer |

Code Length per Manufacturer:

Current status,⁵ subject to changes in the future by each manufacturer.

| Data Element | BAT [no. of chars] | ITG [no. of chars] | JTI [no. of chars] | PMI [no. of chars] |
|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| AI 01 | 2 | 2 | 2 | 2 |
| GTIN-14 | 14 | 14 | 14 | 14 |
| AI 21 | 2 | 2 | 2 | 2 |
| Serial Number | 19 | 17 | 12 | 12 |
| AI 240 | 3 | 3 | 3 | 3 |
| Product Code | 8 | 8 | 8 | 11 |

Optional:

| | | | | |
|-------------------------|----------|----------|----------|---|
| AI 10 | 2 | 2 | 2 | 2 |
| Production Batch | Variable | Variable | Variable | 9 |

Code Example:

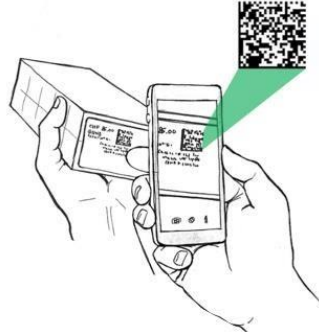
- Data Carrier: "**<FNC1>010402350071522421KVVJB497KL07<FNC1>240PRD45678**"
- Human Readable: "**(01) 04023500715224
(21) KVVJB497KL07
(240) PRD45678**"

Code Look and Position:

Data carrier is 2D Datamatrix, positioned on the end panel of the outer, either on a label or directly applied on the carton.

⁵ As decided in July 2018.

The EU-TPD compliant data carrier to be used by the trade actors is highlighted by the special marking “TTT” above or next to it, offering the guarantee that the aggregation content has been registered by the aggregated unit builder (manufacturer or previous trade actor).



Example:



Code Processing Capability:

The Aggregated Level UI at outer level is a pure GS1 SGTIN according to ISO 15495-4, enabling any trade actor to identify the product out of the scanned UI, by using:

- either the <GTIN-14> part (prefixed by AI “01”),
- or the <Manufacturer Product Code> part (prefixed by AI “240”) providing a deeper product granularity, □ or both parts.

Code to be transmitted:

While the accepted Aggregated Level UI format allows to include, in addition to the mandatory SGTIN parts “(01)..(21)..”, some more info prefixed with appropriate GS1 application identifiers (ex: (240).. or (10)..), it is unclear what UI part(s) will be requested to be transmitted to the EU-TPD repository (full code as read or only (01)..(21)..).

Therefore, it is strongly recommended that the local tracking system fully relies on GS1 rules when capturing and storing the UI.

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| <p>3. <u>Aggregated Level Unique ID (Master Case)</u></p> | |
|--|--|

Code Structure:

The manufacturers who are members of the DCTA will be generating by themselves the required Aggregated Level Unique ID compliant with **ISO 15495-4**, which will be applied on each master case unit, fully in data carrier and human readable formats.

Code structure is a **GS1-SGTIN** (Serialized GTIN), including special characters (i.e. <FNC1>) and Application Identifiers (AI) as mandated by the standard, and completed with additional GS1 compliant data elements at the manufacturer's convenience.

| Data Element | Length [chars] | Example | Comment |
|---------------|-------------------|----------------------|--|
| <FNC1> | n/a | n/a | Special character mandated by GS1 |
| AI 01 | 2 | "01" | AI used as GTIN prefix |
| GTIN-14 | 14 | "05410706718553" | Master Case GS1 GTIN GTIN-14 or EAN-13 prefixed by "0" |
| AI 21 | 2 | "21" | AI used as SN prefix |
| Serial Number | Variable (20 max) | "041703200737144901" | Serial Number, from GS1's 82 character set |

Optional: example (can contain additional ones according to GS1 rules)

| | | | |
|------------------|-------------------|---|--|
| <FNC1> | n/a | n/a | Special character mandated by GS1 if the (21) is less than 20 characters |
| AI 240 | 3 | "240" | AI used as product code prefix |
| Product Code | Variable (30 Max) | "PRD45678", "FA060408.14", "ManufProduct12", etc. | Product Code as defined by the manufacturer |
| <FNC1> | n/a | n/a | Special character mandated by GS1 if further AIs are included and the (240) is less than 30 characters |
| AI 10 | 2 | "10" | AI used as production batch prefix |
| Production Batch | Variable (20 Max) | "21ABCDEFGF" | Production Batch as defined by the manufacturer |

Code Length per Manufacturer:

Current status,⁶ subject to changes in the future by each manufacturer.

| Data Element | BAT [no. of chars] | ITG [no. of chars] | JTI [no. of chars] | PMI [no. of chars] |
|---------------|--------------------|--------------------|--------------------|--------------------|
| AI 01 | 2 | 2 | 2 | 2 |
| GTIN-14 | 14 | 14 | 14 | 14 |
| AI 21 | 2 | 2 | 2 | 2 |
| Serial Number | 19 | 16 | 7 | 18 |

Optional:

| | | | | |
|------------------|----------|----------|-----|----|
| AI 240 | 3 | 3 | 3 | 3 |
| Product Code | 8 | 8 | n/a | 11 |
| AI 10 | 2 | 2 | 2 | 2 |
| Production Batch | Variable | Variable | 8 | 9 |

⁶ As decided in July 2018.

Code Example:

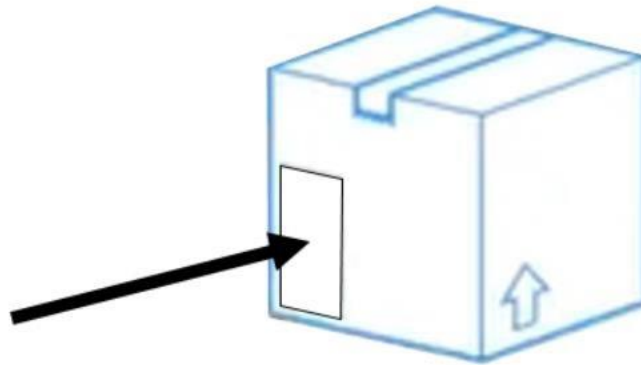
- Data Carrier:
“<FNC1>**010541070671855321041703200737144901**<FNC1>**240PRD45678**”
- Human Readable: “**(01) 05410706718553**
(21) 041703200737144901
(240) PRD45678”

Code Look and Position:

Data carrier is 2D Datamatrix, integrated on the existing case label positioned on one or two sides of the master cases.

Some manufacturers are applying, in addition to the 2D Datamatrix, the equivalent code in linear barcode (GTIN-128) format.

The EU-TPD compliant data carrier to be used by the trade actors is highlighted by the special marking “TTT” above or next to it, offering the guarantee that the aggregation content has been registered by the aggregated unit builder (manufacturer or previous trade actor).



Example:

TTT



(01) 05410706718553
(21) 041703200737144901
(240) PRD45678

Code Processing Capability:

The Aggregated level UI at master case level is a pure GS1 SGTIN according to ISO 15495-4, enabling any trade actor to identify the product out of the scanned UI, by using:


- either the <GTIN-14> part (prefixed by AI “01”),
- or the <Manufacturer Product Code> part (prefixed by AI “240”) providing a deeper product granularity, if available, □ or both parts.

Code to be transmitted:

While the accepted Aggregated Level UI format allows to include, in addition to the mandatory SGTIN parts “(01)..(21)..”, some more info prefixed with appropriate GS1 application identifiers (ex: (240).. or

(10)..), it is unclear what UI part(s) will be requested to be transmitted to the EU-TPD repository (full code as read or only (01)..(21)..).

Therefore, it is strongly recommended that the local tracking system fully relies on GS1 rules when capturing and storing the UI.

| | |
|---|---|
| <p><u>Aggregated Level Unique ID (Pallet, Mixed Case, Logistic Unit, etc.)</u></p> <p>4.</p> |  |
|---|---|

Code Structure:

The manufacturers who are members of the DCTA will be generating by themselves the required Aggregated Level Unique ID compliant with **ISO 15495-1**, which will be applied on pallet, mixed cases and/or any logistic units entering in the EU-TPD scope, fully in data carrier and human readable formats.

Code structure is a **GS1-SSCC** (Serial Shipping Container Code), including special characters (i.e. <FNC1>) and Application Identifiers (AI) as mandated by the standard, and potentially completed with additional GS1 compliant data elements at the manufacturer’s convenience.

| Data Element | Length [chars] | Example | Comment |
|--------------|----------------|----------------------|-----------------------------------|
| <FNC1> | n/a | n/a | Special character mandated by GS1 |
| AI 00 | 2 | “00” | AI used as SSCC prefix |
| SSCC | 18 | “034023500070013765” | Pallet or Logistics Unit GS1 SSCC |

Optional:

| | | | |
|------------------|-------------------|--------------|---|
| AI 10 | 2 | “10” | AI used as production batch prefix |
| Production Batch | Variable (20 Max) | “21ABCDEFGF” | Production Batch as defined by the manufacturer |

Code Example:

- Data Carrier: “<FNC1>**00034023500070013765**”
- Human Readable: “**(00) 0 34023500 07001376 5**”
- Code to be transmitted: **00034023500070013765**

Code Look and Position:

Data carrier is a Linear Barcode, integrated on the existing pallet label positioned on one side of the pallet. For manufacturers providing an aggregation for the entire delivery the linear bar code may also/instead be available on the physical Delivery Note document. As a further alternative some manufacturers may additionally provide electronic access to contents listing.

It can alternatively be a 2D Datamatrix for mixed cases or smaller logistic units.

The EU-TPD compliant data carrier to be used by the trade actors is highlighted by the special marking “**TTT**” above or next to it, offering the guarantee that the aggregation content has been registered by the aggregated unit builder (manufacturer or previous trade actor).

Note that this aggregation level (pallet, mixed case, logistic unit) is subject to change in the distribution.

DCTA manufacturers have different ways to handle it, so they may not all guarantee the presence of “TTT” (confirming the registration of the aggregation content), which might be delegated to the relevant trade actors when needed.

The below examples illustrates some possibilities, but each DCTA manufacturer’s solution may vary.

Example of:
SSCC on a Pallet



Example of:
SSCC on a Delivery Note

or



Example:

