



The Global Language of Business

# Apparel & General Merchandise

## Implementation Guideline

Format & Symbol Placement for the Electronic Product Code (EPC)

*Release 1.2, October 23, 2020*

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## About GS1

GS1® is a neutral, not-for-profit, global organization that develops and maintains the most widely-used supply chain standards system in the world. GS1 Standards improve the efficiency, safety, and visibility of supply chains across multiple sectors. With local Member Organizations in over 110 countries, GS1 engages with communities of trading partners, industry organizations, governments, and technology providers to understand and respond to their business needs through the adoption and implementation of global standards. GS1 is driven by over a million user companies, which execute more than six billion transactions daily in 150 countries using GS1 Standards.

## About GS1 US

GS1 US®, a member of GS1 global, is a not-for-profit information standards organization that facilitates industry collaboration to help improve supply chain visibility and efficiency through the use of GS1 Standards, the most widely-used supply chain standards system in the world. Nearly 300,000 businesses in 25 industries rely on GS1 US for trading-partner collaboration that optimizes their supply chains, drives cost performance and revenue growth while also enabling regulatory compliance. They achieve these benefits through solutions based on GS1 global unique numbering and identification systems, barcodes, Electronic Product Code (EPC®)-based RFID, data synchronization, and electronic information exchange. GS1 US also manages the United Nations Standard Products and Services Code® (UNSPSC®).

## Document Summary

Document Item	Current Value
<b>Document Title</b>	Implementation Guideline - Format & Symbol Placement for the Electronic Product Code (EPC)
<b>Date Last Modified</b>	September 2020
<b>Document Description</b>	The purpose of this document is to support organizations with their implementation of radio-frequency identification (RFID) by outlining the details on the format and symbol placement of the EPCs.

## Log of Changes

Release Number – Date	Changes
<b>Release 1.0</b>	Release/publication
<b>Release 1.1 – August 2014</b>	The materials herein are proprietary to GS1 US following the merger of GS1 US with Voluntary Interindustry Communication Standards® (VICS) in 2012 and does not contain any other material changes.
<b>Release 1.2 – October 2020</b>	Updated and expanded the placement guidelines by category of merchandise.

## 1 Introduction

### 1.1 Preface

The GS1 US Apparel and General Merchandise EPC Tag Placement Guideline Workgroup is providing these guidelines for the implementation of the Electronic Product Code (EPC®) as a service to the industry.

Since 2003, GS1/EPCglobal® has been developing hardware and software standards for radio frequency identification (RFID) technology. The standards that support the identification, capturing, and sharing of data about physical objects are known as the GS1 EPCglobal Standards Architecture.

In 2010, as RFID technology was taking hold in the apparel industry, VICS organized a committee to develop guidelines which would assist in the rollout of RFID. The committee was comprised of suppliers, retailers, as well as technology and service providers. In June 2010, the VICS Board approved the use of *GS1® Apparel Guidelines: Format and Symbol Placement* and *VICS' Voluntary Guidelines for Floor-Ready Merchandise* as the foundation and starting points for the RFID standards and guidelines in this document. This document has subsequently been updated in 2014, and with this revision, in 2020.

### 1.2 Problem Statement/Business Need

RFID technology has taken hold in the apparel industry. To help suppliers comply with EPC standards and remain efficient within their supply chains, it is imperative that retailers agree on a set of guidelines. Adherence to a set of guidelines should enable suppliers and retailers to improve the value of products delivered to the consumer with the potential of increasing profit.

Obviously, the best economics will be obtained when there is a consistency of a given service and the EPC application happens simultaneously with the item tagging or labeling process, usually at point of manufacture. Understanding that not all companies are ready to tag at point of manufacture, these guidelines offer several tag placement options.

### 1.3 Mission

Provide suppliers, retailers, technology providers, and service providers with guidelines for the efficient identification, serialization and placement of EPC tags.

### 1.4 Scope

The scope focuses on the apparel, footwear and general merchandise categories.

### 1.5 Audience

This document is designed to be used by suppliers, retailers, technology providers, and service providers.

## 2 General Placement Guidelines

### 2.1 Bidirectional Conversations to Ensure Successful EPC Rollout

Best practices require bidirectional communication between supplier and retailer during EPC implementation to determine optimal EPC type and placement with the goal to minimize work effort and keep implementation costs low.

Although the guidelines ask that retailers mandate these placement options, it is important that the supplier confers with the retailer prior to implementation.

## 2.2 General Intent to Leverage Current U.P.C. Tag Placement

The general intent is to use the current Universal Product Code tag (U.P.C.) placement guideline as a starting point. There is no intention to override or change the U.P.C. marking or placement standards. As such, the EPC tag should be placed on or embedded into the U.P.C. tag, media, trim, or packaging that is attached to the garment itself and is removable by the customer after purchase. Alternatively, the EPC tag could be affixed separately, close to the U.P.C. It is possible that the same category of merchandise might have different placements between men's, women's, and children's.

## 2.3 General Placement to Optimize Readability

For optimal readability there are certain placement options that should be avoided:

- Avoid placing the EPC tag where the hanger clips might go
- Avoid contact with metals (including and/or noting metallic thread or foil-based packaging) and liquids, as these typically impact the read performance of a tag
- Avoid folding the EPC tag
- Avoid attaching the tag directly to the hanger
- Avoid inserting a dry inlay loosely within a package

Avoid placing a tag on a boxed item surface that may be placed directly onto a metal shelf.

# 3 About the EPC Tag

## 3.1 EPC Tag Types

- A combined EPC/U.P.C. ticket where the inlay is sandwiched (encapsulated) between tag layers. This could be a hangtag or a sticker
- A label, more specifically, a tag that is affixed on the back of existing media/packaging/trim
- A secondary tag that has EPC functionality. This could be a hangtag or a sticker
- A woven or embedded tag

## 3.2 Required Information on the EPC Tag

The EPC seal is to be visible on the human-readable side of media, packaging or trim that has the tag. Note that both the front and back of a hangtag are considered human-readable. The human-readable serialized Global Trade Item Number® (sGTIN) is acceptable, but not deemed necessary for this guideline. Guidance on the use of EPC/RFID for consumer products may be found here: <https://www.gs1.org/standards/epc-rfid/guidelines>. This provides details on public policy and consumer notification symbols.

## 3.3 Woven or Embedded Tags

Woven or otherwise embedded RFID tags may be used as an alternative to the tag placement guidance outlined below, so long as trading partners are in agreement. In this case, the product is to have the appropriate EPC seal visible to indicate that the item has an RFID tag present. At the time of this document publication, GS1 Global is developing updated guidance regarding best practices for woven labels. This will include consumer notification considerations and may be found at this location: <https://www.gs1.org/standards/epc-rfid/guidelines>.

Note that, as with any other RFID inlays, woven or otherwise embedded RFID tags should be placed in a manner as to avoid contact with metal (e.g. away from potentially touching a metallic hanger) and to avoid being folded (e.g. away from a portion of the garment that would be typically bent when folded).

## 4 Placement Guidelines by Category of Merchandise

### 4.1 Pants, Slacks, Jeans, Shorts - Folded

This category includes items such as denim, twill, woven, fleece, and knit pants, slacks, and jeans with either a constructed, elastic, or drawstring waistband that are intended to be folded.

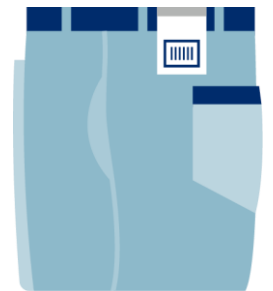
GS1 US guidelines suggest U.P.C. is affixed on left rear waistband or (alternate) if the item contains a joker ticket, the tag may be affixed to the joker ticket so long as the thread or staple does not puncture the tag.

#### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.

#### Environmental/display considerations

Metal shelving will affect readability



### 4.2 Pants, Slacks, Jeans, Shorts - Hanging

This category includes items such as denim, twill, woven, fleece, and knit pants, slacks, jeans, shorts, swim trunks, bike shorts, and boxer shorts with either a constructed, elastic, or drawstring waistband that are intended to be hanging.

GS1 US guidelines suggest U.P.C. is affixed on either the left rear waistband or left side waist seam.

#### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.

#### Environmental/display considerations

Do not place the EPC tag where a hanger clip might go





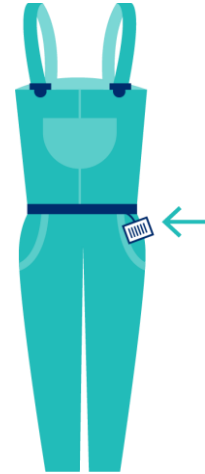
### 4.3 Overalls, Shortalls, Rompers - Hanging

This category includes items such as fabrications of bib and sku overalls, shortalls, and rompers.

GS1 US guidelines suggest U.P.C. is affixed on the left side waistband seam. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



### 4.4 Skirts

This category includes items such as denim, twill, woven, fleece, and knit skirts with either a constructed, elastic, or drawstring waistband.

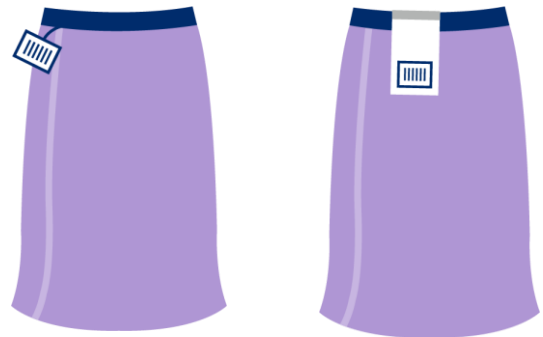
GS1 US guidelines suggest U.P.C. is affixed (preferred) on the left side waistband seam or (alternate) on the left rear waistband seam.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.

Environmental/display considerations

Do not place the EPC tag where a hanger clip might go



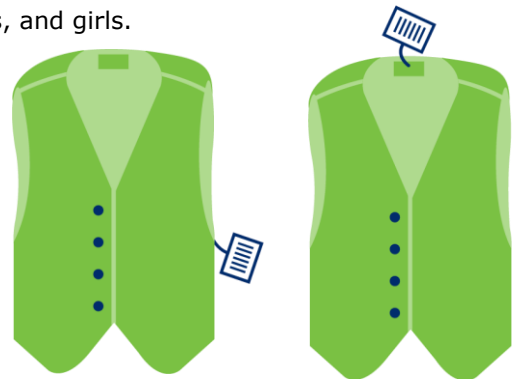
### 4.5 Vests

This category includes items such as vests for men's, women's, boys, and girls.

GS1 US guidelines suggest U.P.C. is affixed (preferred) through the lower left arm hole seam or (alternate) to the front lower panel of the vest.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



## 4.6 Men’s Sport Coats, Blazers, Suits, Tuxedos, Outerwear Coats and Jackets

This category includes items such as men’s and boys’ sport coats, blazers, two-piece and three-piece suits and tuxedos, trench coats, overcoats, raincoats, ski jackets, leather jackets, bombers, quilted flannel shirts, wind breakers, and ponchos.

GS1 US guidelines suggest U.P.C. is affixed (preferred) on the left sleeve cuff of jacket or (alternate) to the left sleeve seam of jacket or (alternate) attach to the seam at the armhole using a barb and hang tag.

### EPC placement options

Preferred: Incorporate EPC into/onto U.P.C. tag

Alternate: Incorporate EPC into/onto current media

Alternate: Incorporate EPC into/onto current trim

Alternate: Affix separate EPC tag close to the U.P.C.



## 4.7 Poncho, Parka

This category includes pullover outerwear without waistbands such as ponchos and parkas.

GS1 US guidelines suggest U.P.C. is affixed through the manufacturer label or care label.

### EPC placement options

Preferred: Incorporate EPC into/onto U.P.C. tag

Alternate: Incorporate EPC into/onto current media

Alternate: Incorporate EPC into/onto current trim

Alternate: Affix separate EPC tag close to the U.P.C.



## 4.8 Women’s Sport Coats, Blazers, Suits, Tuxedos, Outerwear Coats and Jackets

This category includes items such as women’s and girls’ blazers and suits.

GS1 US guidelines suggest U.P.C. is affixed (preferred) to the left sleeve seam of jacket or (alternate) to the left sleeve cuff of jacket or (alternate) attach to the seam at the armhole using a barb and hang tag.

### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



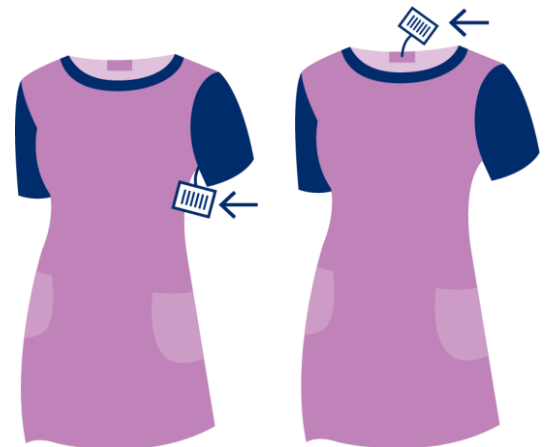
## 4.9 Dresses with Sleeves

This category includes all length of dresses that have a constructed sleeve. If the dress has an outer jacket, the sleeve of the jacket is considered part of the dress for symbol placement purposes.

GS1 US guidelines suggest U.P.C. is affixed (preferred) to the left sleeve hem or (alternate) inside the collar through the manufacturer label or care label.

### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



#### 4.10 Dresses, Sleeveless

This category includes items such as dresses that have no constructed sleeves.

GS1 US guidelines suggest U.P.C. is affixed on (preferred) the left arm hole seam or (alternate) inside the collar through the manufacturer label or care label.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



#### 4.11 Tops, Long Sleeve - Hanging

This category includes items such as woven and knit long-sleeved shirts, sweaters, turtlenecks, and blouses that are intended to be merchandised hanging.

GS1 US guidelines suggest U.P.C. is affixed (preferred) inside the collar through the manufacturer label or care label or (alternate) to the left cuff seam or (alternate) attach to the seam at the armhole using a barb and hang tag.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



#### 4.12 Tops, Short-Sleeved - Hanging

This category includes items such as woven and knit short-sleeved shirts, sweaters, polos, and blouses that are intended to be merchandised hanging.

GS1 US guidelines suggest U.P.C. is affixed (preferred) inside the collar through the manufacturer label or care label or (alternate) to the left sleeve seam or (alternate) attach to the seam at the armhole using a barb and hang tag.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



### 4.13 Tops, Sleeveless - Hanging

This category includes items such as woven and knit sleeveless shirts, blouses, tank tops, sweater vests, and halter tops that are intended to be merchandised hanging.

GS1 US guidelines suggest U.P.C. is affixed (preferred) inside the collar through the manufacturer label or care label or (alternate) to the left armhole seam.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



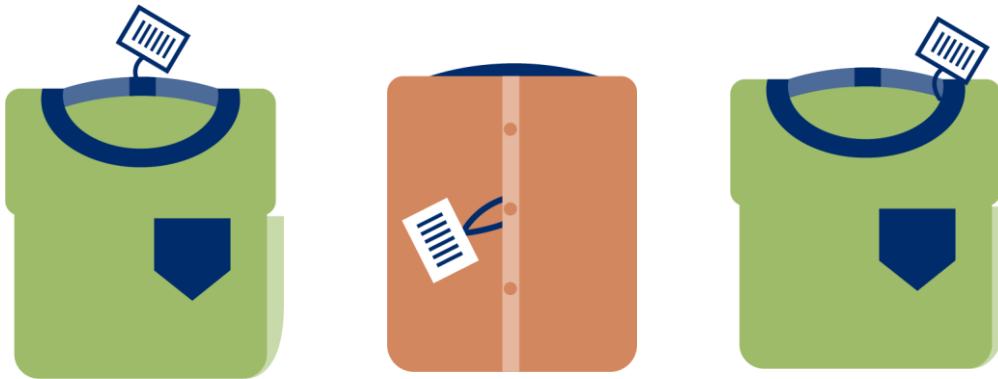
### 4.14 Tops - Folded

This category includes all sleeve lengths of tops, such as woven or knit skirts, blouses, sweaters, and turtlenecks that are intended to be folded merchandise.

GS1 US guidelines suggest U.P.C. is affixed (preferred) inside the collar through the manufacturer label or care label or (alternate) looped through the center buttonhole on the back of the folded shirt or (alternate) affixed through the inside left neck seam.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



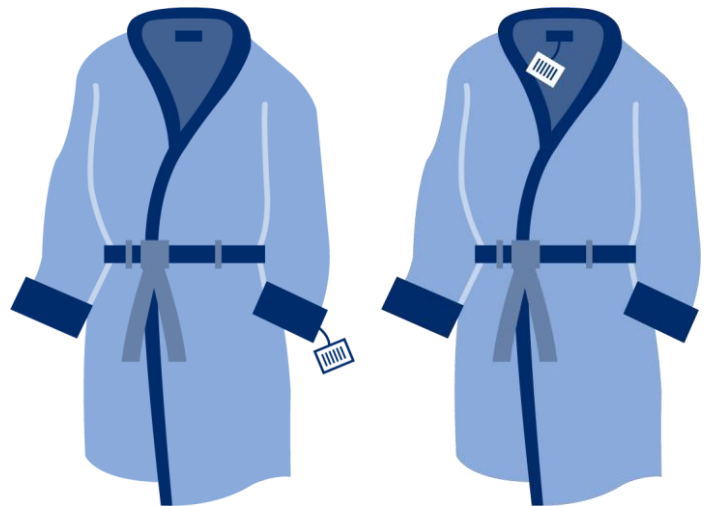
#### 4.15 Robes

This category includes items such as pajamas, bathrobes, housecoats, and nightgowns.

GS1 US guidelines suggest U.P.C. is affixed on (preferred) the left sleeve cuff seam or (alternate) inside the collar through the manufacturer label or care label.

##### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



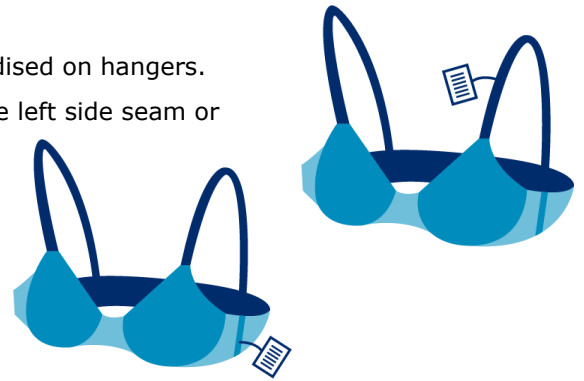
#### 4.16 Bras - Hanging

This category includes items such as bras intended to be merchandised on hangers.

GS1 US guidelines suggest U.P.C. is affixed (preferred) through the left side seam or (alternate) through the front left strap.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



Don'ts

Do not place the EPC tag on external packaging that could get separated from the garment itself. For example, do not affix the EPC tag to media that is attached to the hanger.

#### 4.17 Camisoles, Teddies, Crop Tops, Slips, One-Piece Swimwear, Bodywear, Dancewear - Hanging

This category includes items such as camisoles, teddies, crop tops, slips, and one-piece swimwear, bodywear, and dancewear.

GS1 US guidelines suggest U.P.C. is affixed (preferred) through the top left side (arm hole) seam or (alternate) through the manufacturer label or care label.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.

Don'ts

Do not place the EPC tag on external packaging that could get separated from the garment itself. For example, do not affix the EPC tag to media that is attached to the hanger.



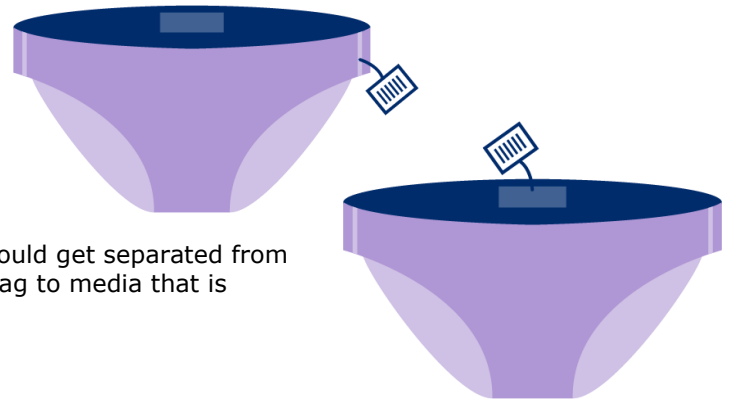
#### 4.18 Panties, Control Garments - Hanging

This category includes items such as panties, briefs, and girdles intended to be merchandised on hangers.

GS1 US guidelines suggest U.P.C. is affixed (preferred) through the left side seam or (alternate) through the manufacturer label or care label.

##### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



##### Don'ts

Do not place the EPC tag on external packaging that could get separated from the garment itself. For example, do not affix the EPC tag to media that is attached to the hanger.

#### 4.19 Swimwear, Two-Piece

This category includes items such as bathing swimwear sold as a two-piece set.

GS1 US guidelines suggest U.P.C. is affixed (preferred) through the top left side seam or (alternate) through the back of the top.

##### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.

##### Environmental/Display Considerations:

Do not place the EPC tag where a hanger clip might go





## 4.20 Banded Apparel

This category includes such as packaged socks, with labels placed around the product. Items in this category do not have an outer cover or package.

GS1 US guidelines suggest U.P.C. is affixed on the center back portion of the label. There is no alternate location.

### EPC placement options

Preferred: Incorporate EPC into/onto U.P.C. tag

Alternate: Incorporate EPC into/onto current media

Alternate: Affix separate EPC tag close to the U.P.C.



## 4.21 Boxed Apparel - Flap

This category includes apparel packaged in boxes with a flap lid that are to be merchandised with the product, such as men's underwear and slippers.

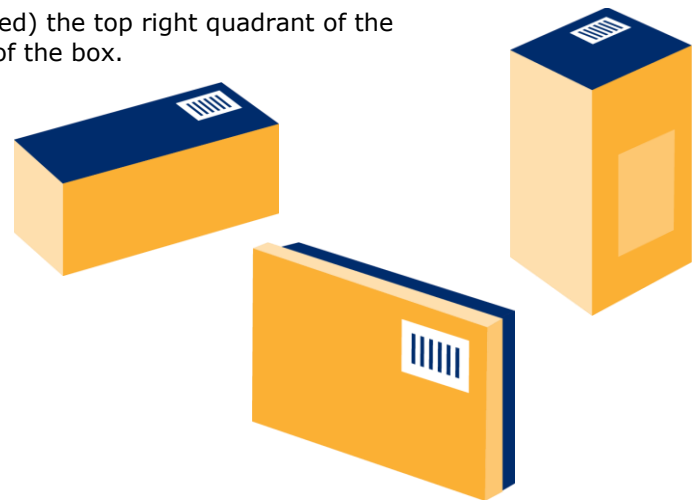
GS1 US guidelines suggest U.P.C. is affixed on (preferred) the top right quadrant of the package or (alternate) on the front upper right corner of the box.

### EPC placement options

Preferred: Incorporate EPC into/onto U.P.C. tag

Alternate: Incorporate EPC into/onto current media

Alternate: Affix separate EPC tag close to the U.P.C.



## 4.22 Boxed Apparel - Lid

This category includes apparel packaged in boxes with a removable lid, such as shoes.

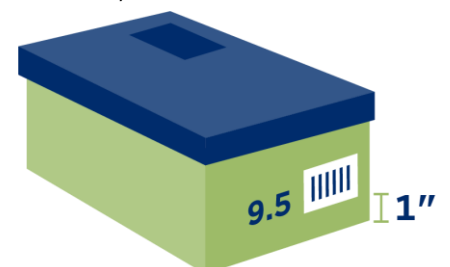
GS1 US guidelines suggest U.P.C. is affixed on the side of the box next to the size identification. There is no alternate location. Note that the RFID inlay should be above the bottom inch of the box, to avoid contact with metal edging.

### EPC placement options

Preferred: Incorporate EPC into/onto U.P.C. tag

Alternate: Incorporate EPC into/onto current media

Alternate: Affix separate EPC tag close to the U.P.C.



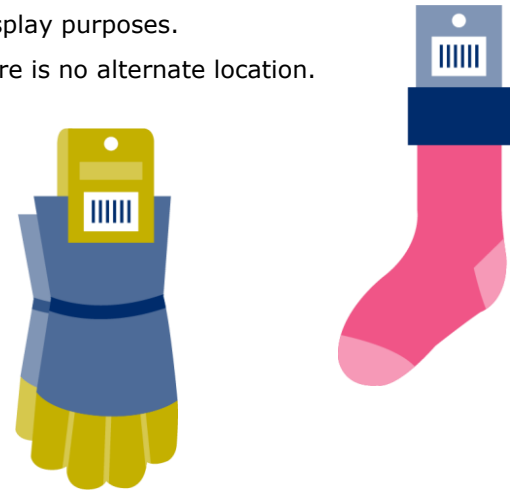
### 4.23 Carded Apparel - Flap

This category includes merchandise that is affixed to a cardboard for display purposes.

GS1 US guidelines suggest U.P.C. is affixed on the face of the card. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Affix separate EPC tag close to the U.P.C.



### 4.24 Flat-Packed Apparel

This category includes product packages that are thin and have no sides, such as women’s hosiery.

NOTE: If metal dividers are used for display purposes, placement that may occur on the back of the package should be affixed next the top of the package to avoid direct contact with metal. This will affect tagged item performance and readability of the product.

GS1 US guidelines suggest U.P.C. is affixed on the front upper right corner of the package. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Affix separate EPC tag close to the U.P.C.



### 4.25 Plastic-Packaged Apparel

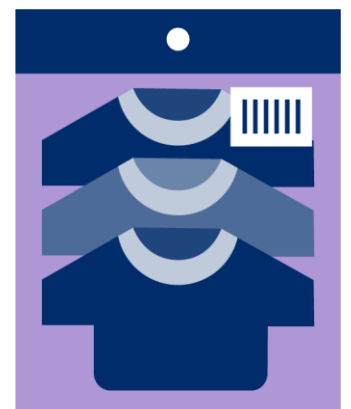
This category includes merchandise wrapped in plastic that may or may not include cardboard inserts, such as packages of underwear or socks.

NOTE: If metal dividers are used for display purposes, placement that may occur on the back of the package should be affixed next the top of the package to avoid direct contact with metal. This will affect tagged item performance and readability of the product.

GS1 US guidelines suggest U.P.C. is affixed (preferred) on the front upper corner of the package, (also preferred) on the back of the package, or (alternate) in a location that is easily discernable and readable by the consumer.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Affix separate EPC tag close to the U.P.C.



## 4.26 Shirts - Packaged

This category includes woven shirts with an outer packaging to be merchandised with the shirt.

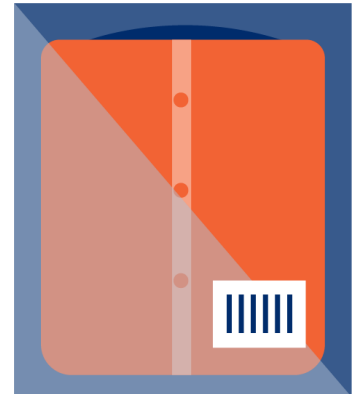
GS1 US guidelines suggest U.P.C. is affixed on back lower right corner. There is no alternate location.

### EPC placement options

Preferred: Incorporate EPC into/onto U.P.C. tag

Alternate: Incorporate EPC into/onto current media

Alternate: Affix separate EPC tag close to the U.P.C.



## 4.27 Backpacks

This category includes items such as backpacks, knapsacks, and fanny packs.

GS1 US guidelines suggest U.P.C. is affixed through the left strap buckle. There is no alternate location.

### EPC placement options

Preferred: Incorporate EPC into/onto U.P.C. tag

Alternate: Incorporate EPC into/onto current media

Alternate: Incorporate EPC into/onto current trim

Alternate: Affix separate EPC tag close to the U.P.C.



## 4.28 Belts

This category includes items such as belts.

GS1 US guidelines suggest U.P.C. is affixed (preferred) inside the base of the buckle or (alternate) through the buckle.

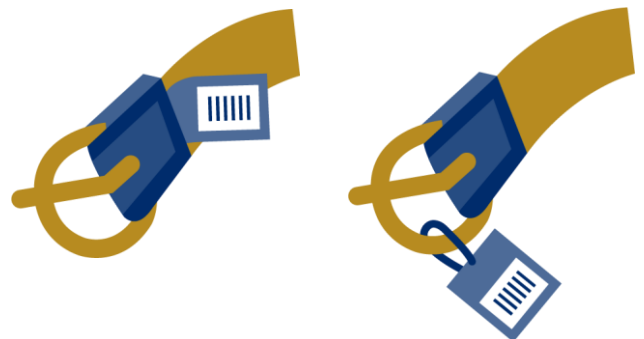
### EPC placement options

Preferred: Incorporate EPC into/onto U.P.C. tag

Alternate: Incorporate EPC into/onto current media

Alternate: Incorporate EPC into/onto current trim

Alternate: Affix separate EPC tag close to the U.P.C.



## 4.29 Bibs

This category includes items such as free-hanging infant bibs.

GS1 US guidelines suggest U.P.C. is affixed through the left-hand seam or (alternate) if the bib material cannot be attached to but has a header card, attach the tag to the back of the header card

### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



## 4.30 Caps, Visors

This category includes items such as caps that do not have a full brim or headband such as baseball caps, berets, visors, and beanies.

GS1 US guidelines suggest U.P.C. is affixed through the outside center back seam or center of the headband. There is no alternate location.

### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



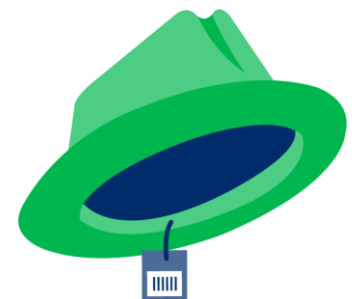
## 4.31 Hats

This category includes items such as hats with or without a brim such as cowboy hats, straw hats, fedoras, pillbox hats, felt hats, and dressy hats.

GS1 US guidelines suggest U.P.C. is affixed inside the hat through the headband. There is no alternate location.

### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



### 4.32 Hats, Knit

This category includes items such as unconstructed hats with no brim or headband such as knit hats and ski masks.

GS1 US guidelines suggest U.P.C. is affixed through the outside top of the hat. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



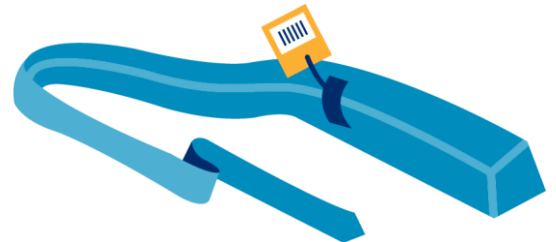
### 4.33 Neckwear

This category includes items such as unknotted ties, clip-on ties, and bow ties of all fabrication.

GS1 US guidelines suggest U.P.C. is affixed through the manufacturer label. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



### 4.34 Cummerbunds

This category includes items such as non-packaged cummerbunds.

GS1 US guidelines suggest U.P.C. is affixed adjacent to the fastening device. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



### 4.35 Dickies, Collars

This category includes items such as dickies and collars.

GS1 US guidelines suggest U.P.C. is affixed through the manufacturer label or care label. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



### 4.36 Footwear - Open

This category includes items such as sandals, slippers, athletic shoes, or other footwear that is banded together and intended to be sold loose or unboxed.

GS1 US guidelines suggest U.P.C. is affixed to the connecting string. There is no alternate location. Avoid placing the tag on the bottom of the shoe, as it may be placed on metallic shelving or contain metal in the sole.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



### 4.37 Glasses

This category includes items non-prescription eyeglasses such as sunglasses or pre-made readers.

GS1 US guidelines suggest U.P.C. is affixed around the left arm of the glasses. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



### 4.38 Gloves, Mittens

This category includes items such as gloves and mittens.

GS1 US guidelines suggest U.P.C. is affixed through the connecting string of the gloves or mittens. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



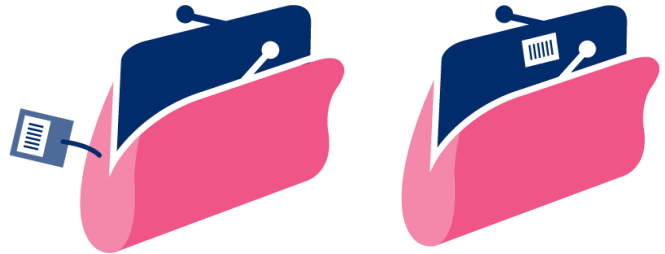
### 4.39 Handbags - Hinged

This category includes items such as clutches, coin purses, and dop kits.

GS1 US guidelines suggest U.P.C. is affixed (preferred) through an outside hinge joint or (alternate) to the inside of a main compartment.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



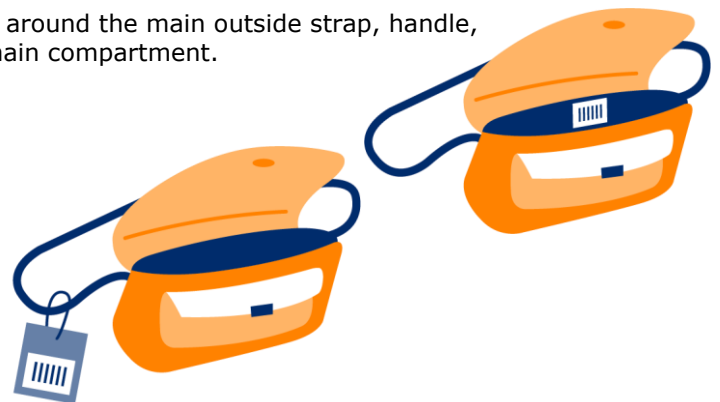
### 4.40 Handbags, Purses

This category includes purses and cinch sacks.

GS1 US guidelines suggest U.P.C. is affixed (preferred) around the main outside strap, handle, zipper, or frame joint or (alternate) to the inside of a main compartment.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



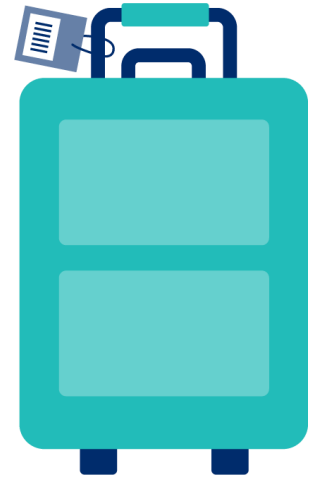
#### 4.41 Luggage, Briefcase

This category includes items such as briefcases, suitcases, garment bags, and duffle bags.

GS1 US guidelines suggest U.P.C. is affixed around the main carrying handle. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



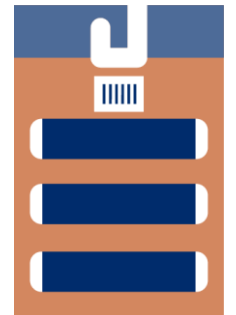
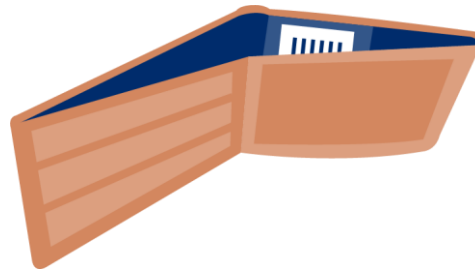
#### 4.42 Wallets

This category includes items such as wallets, billfolds, and trifold.

GS1 US guidelines suggest U.P.C. is affixed to the inside of the bill compartment or (alternate) if the wallet contains RFID blocking and a hanger, then attach to the hanger.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



#### 4.43 Loose Watches

This category includes items such as watches and pocket watches.

GS1 US guidelines suggest U.P.C. is affixed to the base of the wristwatch or the stem of the pocket watch. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.





#### 4.44 Watches Displayed in a Box or Case

This category includes items such as watches and pocket watches.

GS1 US guidelines suggest U.P.C. is affixed to the base of the wristwatch or the stem of the pocket watch AND an additional symbol on the back of the box. There is no alternate location.

##### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



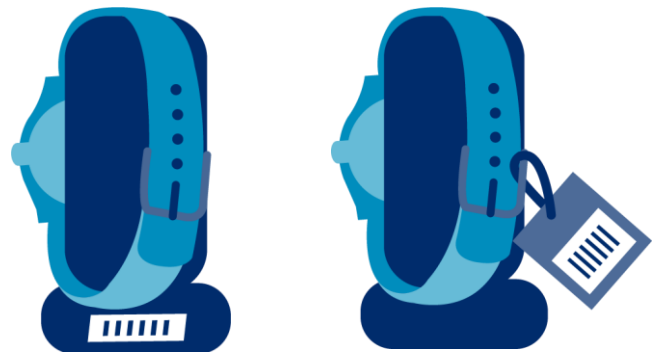
#### 4.45 Watches Displayed in Watch Cuff Only

This category includes items such as watches.

GS1 US guidelines suggest U.P.C. is affixed to the top of the base of the watch cuff or (alternate) attach a tag via string or barb. Note that only one RFID tag should be on each item.

##### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



#### 4.46 Jewelry - Carded

This category includes items jewelry that is sold attached to a card such as earrings, pins, broaches, charms, hair clips, tie tacks, cuff links, and studs.

GS1 US guidelines suggest U.P.C. is affixed (preferred) to the back of card or (alternate) to the bottom of the box if the card is mounted in a box.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



#### 4.47 Jewelry - Loose

This category includes items such as necklaces, chains, bracelets, bangles, and rings.

GS1 US guidelines suggest U.P.C. is affixed through the item. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



#### 4.48 Keychain

This category includes items such as keychains.

GS1 US guidelines suggest U.P.C. is affixed around the key ring. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



#### 4.49 Scarves and Shawls

This category includes items such as winter scarves, silk scarves, and shawls.

GS1 US guidelines suggest U.P.C. is affixed through the manufacturer label or care label. There is no alternate location.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim

Alternate: Affix separate EPC tag close to the U.P.C.



#### 4.50 Suspenders, Braces

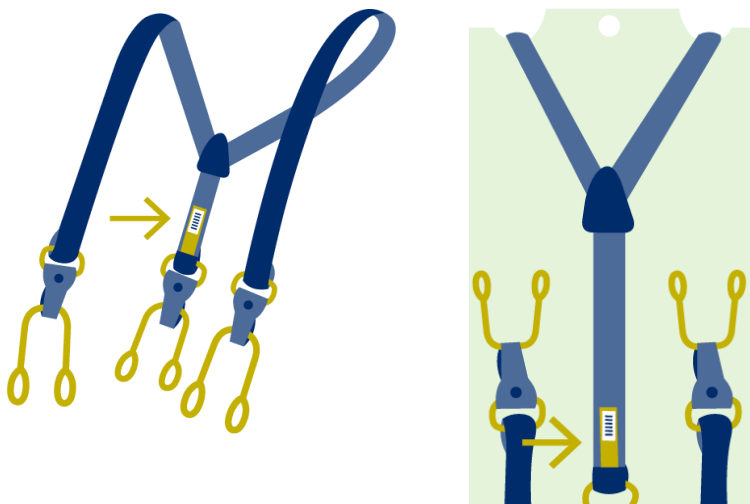
This category includes items such as suspenders and braces.

GS1 US guidelines suggest U.P.C. is affixed to the inside seam of the rear clip or button loop. There is no alternate location.

##### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.

Note that some suspenders may be displayed in a bellyband (wrapped around card stock). The EPC can be placed on the back of the bellyband. Note that the EPC should be placed to avoid point of contact where metal may touch the tag.



## 4.51 Sweatbands

This category includes items such as sweatbands, headbands, wristbands, and ankle bands.

GS1 US guidelines suggest U.P.C. is affixed through the middle of the band. There is no alternate location.

### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



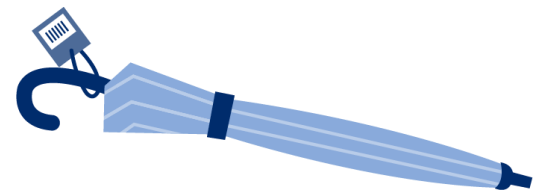
## 4.52 Loose Umbrellas

This category includes items such as umbrellas.

GS1 US guidelines suggest U.P.C. is affixed around the base of the handle. There is no alternate location.

### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



## 4.53 Packaged Umbrellas

This category includes items such as packaged umbrellas.

GS1 US guidelines suggest U.P.C. is affixed at the handle end of the package. There is no alternate location.

### EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



## 4.54 Footwear - Individually Tagged (Each Shoe)

This category includes items such as footwear that are individually tagged and yet sold as a pair. Such items will likely use the ITIP identification key.

GS1 US guidelines suggest U.P.C. is affixed to each item. Avoid placing tag on bottom of shoe to avoid contact with metal shelving. Avoid placing tag near embedded electronics/metal/batteries (e.g. smart shoes) or metal grommets or metallic thread. Do not staple tag.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



### 4.55 Footwear - Display Item Tagging

This category includes items such as footwear that are on display (e.g. just the left or right shoe for a given style-color). Source tagged items (which may use the ITIP identification key) are excluded from this guidance, as this is for in-store tagging guidance only.

GS1 US guidelines suggest that the U.P.C. is affixed to each display item.

Environmental/display considerations

- Avoid placing tag on bottom of shoe to avoid contact with metal shelving
- Avoid placing tag near embedded electronics/metal/batteries (e.g. smart shoes) or metal grommets or metallic thread.
- Do not staple tag
- Ensure that tag has visual indicator, readily visible by store staff, to recognize that a display item has an RFID tag
- Align display tagging with existing processes where applicable

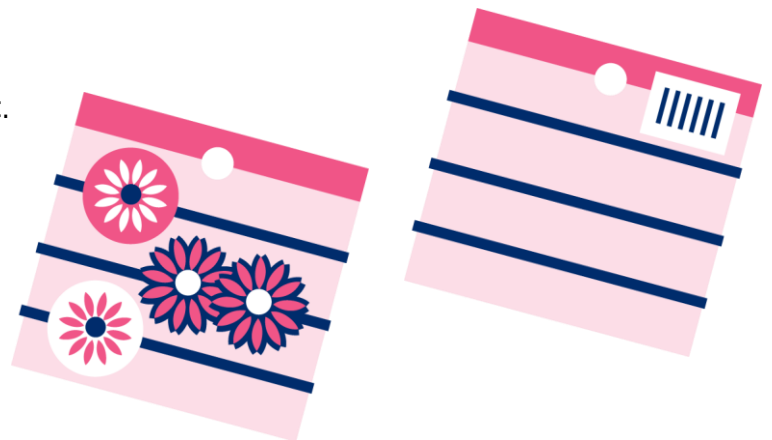
### 4.56 Carded Accessories

This category includes accessories mounted on cardstock.

GS1 US guidelines suggest U.P.C. is affixed to the back of the card stock, avoiding any contact or proximity within ¼ inch of metal (including magnets).

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



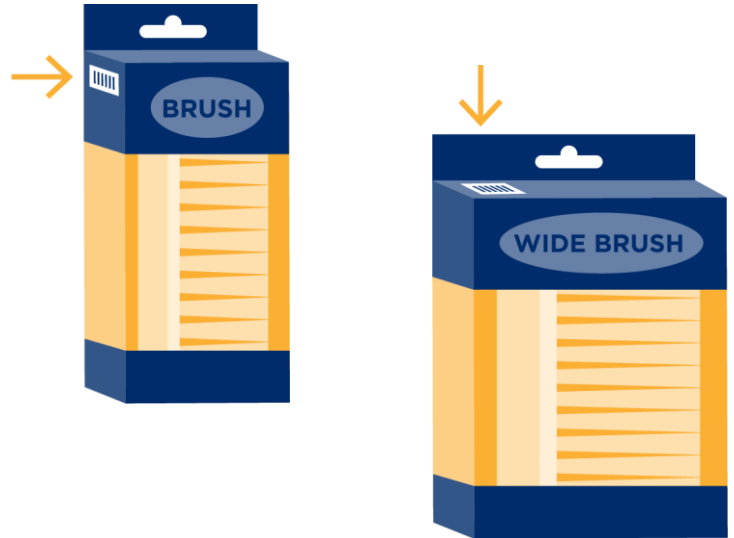
#### 4.57 Boxed Jewelry or Accessories

This category includes boxed items that may be pegged.

GS1 US guidelines suggest U.P.C. is affixed to the side or top of the box, not the back or bottom edge as those surfaces may touch metallic racking. Do not place the EPC on any metallic or foil packaging and avoid placement near liquids. Note that some jewelry boxes are metal covered by felt, and thus not suitable for direct tagging.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



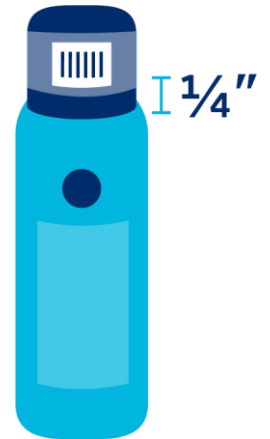
#### 4.58 Bottled Liquids, Creams, Gels, With Non-metallic Cap

This category includes bottled items with a non-metallic cap.

GS1 US guidelines suggest EPC is affixed to the side or end of the non-metallic cap, with a minimum distance of at least 1/4 inch from metal or liquids. Tag testing is advised to ensure a suitable read range.

EPC placement options

- Preferred: Incorporate EPC into/onto U.P.C. tag, if practical to place on the cap
- Alternate: Incorporate EPC into/onto current media
- Alternate: Incorporate EPC into/onto current trim
- Alternate: Affix separate EPC tag close to the U.P.C.



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\*If applicable

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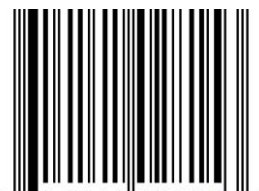
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