GDSN - Product Images

Specifications and guidelines for food, health and beauty and DIY, garden and pets industries in the Benelux.

Release 1.10, Final – ratified, March 2022

Document Summary

Document Item	Current Value
Document Name	GDSN - Product Images
Document Date	March 2022
Document Version	1.10
Document Status	Final - ratified
Document Description	Specifications and usage rules for food, health and beauty and DIY, garden and pets industries in the Benelux.

Log of Changes

Release	Date of Change	Changed By	Summary of Change
1.0	25 September 2018		First harmonised version based on specifications for the individual industries.
1.1	6 December 2018	Reinier Prenger	The 2:3 aspect ratio is valid for both horizontal and vertical dimensions. The text in paragraphs 1.1 and 2.4 therefore changed to 2:3 and 3:2.
1.2	22 March 2019	Reinier Prenger	The following changes are made (also due to the fact of a new release of the international GS1 standard guideline): - Mobile Ready Hero Images added. - Contradiction with alpha channels solved. - Position 17 of file naming convention now has an explanation. - Example added for naming convention table.
1.3	8 May 2019	Reinier Prenger	The following changes are made: - In paragraph 1.1 and 2.4 the mm's removed. - Corrected position 17 of the GDSN naming - For the sequence number the term numeric characters replaced by numeric digits. - In all examples in the name the A replaced by a C (high resolution) - Corrected the Montage image: 2 pictures over each other - For normal images minimum pixels changes from 2400 to 2401. - In chapter 2.5 in NB(1) the word preference removed.

Release	Date of Change	Changed By	Summary of Change
1.4	27 June 2019	Reinier Prenger	The following changes are made: - In paragraph 2.6.1 (white boxes) the text has been changed. - On page 18 the file name extension of the example is changed from jpg to tiff. - In the naming table (3.1) for the codes A and C the maximum changed from – into to. - In paragraph 2.2 (9th dash) the word about removed. - In paragraph 2.3 added that for an automatic clipping path a margin is needed. - Image in paragraph 2.4 improved.
1.5	19 August 2019	Reinier Prenger	The following changes are made: - Properties in 1.1 enhanced. - Added in paragraph 1.2 (product view) a reference to file naming. - Paragraph 2.4 enhanced. - Paragraph 2.6.1 enhanced. - Codes 7 and 8 added to table 3.1, field 17 for file type L. - Code N added to table 3.1, field 19.
1.6	6 October 2020	Ro Van Hamme	The following changes are made: - A number of images has been moved from the annexes to the text - Special product images have been enhanced with technical specifications as detailed by GS1 Global - Ratio 1:1, in line with the guidelines of GS1 Global - Footnotes specific for FMCG Belgilux with additions on the guidelines have been removed - Table 3.1. field 19 code N has been removed and code P has been added
1.7	6 November 2020	Maarten Marrant	- Errata: in sections 1.1 and 2.4, under 'Image size' the text 'the longest side' was removed as it was no longer relevant due to the 1:1 aspect ratio.
1.8.	5 March 2021	Ro Van Hamme	- Addition of attributes that are being used for the exchange of product images (chapter 4) - Additional explanation of the use of underscores (chapter 3.2.) - Clarification of some elements (eg. Exceptions for smaller items) - RGB+alphachannel terminology has been harmonized throughout the document - Changes on the requirements for the sector DIY, Garden & Pet in chapter 2..6.2, based on WR-1085

Release	Date of Change	Changed By	Summary of Change
1.9	20 October 2021	Rachel van Rhijn/Petra Geerdink	- Rewording and improving readability of the document. - Addition of do-it-yourself example at 'type of assembly'. - Clarification of position 19 with/without packaging.
1.10	28 March 2022	Sarah Lard / Gianni De Ridder	- Addition of number of possibilities in the naming convention and change in layout. - Image name improvement in tables - Image enhancement in chapter 2.6.2. - Correct error m.b.t. Mounting images in chapter 3.3. - Removal of field fileFormatName from table on page 44. - Improvements on lay-out and spelling.

Disclaimer

GS1, under its IP Policy, seeks to avoid uncertainty regarding intellectual property claims by requiring the participants in the Work Group that developed this document to agree to grant to GS1 members a royalty-free license or a RAND license to Necessary Claims, as that term is defined in the GS1 IP Policy. Furthermore, attention is drawn to the possibility that an implementation of one or more features of this Specification may be the subject of a patent or other intellectual property right that does not involve a Necessary Claim. Any such patent or other intellectual property right is not subject to the licensing obligations of GS1. Moreover, the agreement to grant licenses provided under the GS1 IP Policy does not include IP rights and any claims of third parties who were not participants in the Work Group.

Accordingly, GS1 recommends that any organization developing an implementation designed to be in conformance with this Specification should determine whether there are any patents that may encompass a specific implementation that the organization is developing in compliance with the Specification and whether a license under a patent or other intellectual property right is needed. Such a determination of a need for licensing should be made in view of the details of the specific system designed by the organization in consultation with their own patent counsel.

THIS DOCUMENT IS PROVIDED "AS IS" WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, NONINFRINGMENT, FITNESS FOR PARTICULAR PURPOSE, OR ANY WARRANTY OTHER WISE ARISING OUT OF THIS SPECIFICATION. GS1 disclaims all liability for any damages arising from use or misuse of this Standard, whether special, indirect, consequential, or compensatory damages, and including liability for infringement of any intellectual property rights, relating to use of information in or reliance upon this document.

GS1 retains the right to make changes to this document at any time, without notice. GS1 makes no warranty for the use of this document and assumes no responsibility for any errors which may appear in the document, nor does it make a commitment to update the information contained herein.

Table of contents

Introduction

With the growth in online marketing and sales good product images have become far more important to generate more sales and reduce returns. The numbers of product images required are also increasing. Organising and exchanging images is not always a smooth process, however: without a standard image format, the sharing of image files has been difficult and inefficient. Representatives of the food, health and beauty and the DIY, garden and pets industries have therefore agreed a standard way of exchanging product images.

Product images serve three main purposes:

- Shelf management images

- Images for e-commerce purposes (websites)

- Images for printed media (advertising leaflets, posters)

What are the specifications and usage rules for exchanging images?

GS1 provides specifications and usage rules for exchanging product images with organisations in the food, health and beauty and the DIY, garden and pets industries.

The specifications and usage rules set out how images can be created, associated and exchanged between trading partners. We also set out a standard for the uniform file naming of images. This makes it clear to everyone what image (and representation) is being referred to without opening the document.

Using the specifications and usage rules

The implementation of the guidelines, and from when onwards they will be effective, are part of sector specific implementation plans. Possible transitional periods are also a part of the implementation, not of the guidelines themselves.

Only the image of the latest version of a product is exchanged. In the case of a promotional/temporary packaging (e.g. a World Cup promotion) the promotional packaging is only temporarily the latest version; after the promotion ends the latest version reverts to the normal image.

Unless explicitly stated, the rules apply to both the commercial (online/offline) exchange of images and to shelf management.

This document is designed for suppliers and retailers, but it also provides a framework for others supplying services to them. These guidelines are based on the existing GS1 standard, i.e. the GS1 Product Image Specification, see *GS1 Product Image Specification*.

1 Summary

Generally speaking, the same specifications for the exchange of images apply to the food, health and beauty and the DIY, garden and pets industries. The only differences between the two are in the view of the images, depending on the products (see 2.7.2) and in a small number of visual specifications.

1.1 Specifications that apply both industries

The product image specifications for both industries are summarised below.

Properties:

Image size:	Minimum 2,401 pixels, maximum 4,800 pixels for normal products
	1,200 pixels for products smaller than 12 cm (longest side)
	900 pixels for products smaller than 6 cm (longest side)
File resolution:	300 dpi
File format:	TIFF
File compression:	LZW
File colour space:	RGB color model with alpha channel (8 bit per channel, Adobe 1998 colour space)
Background:	Transparent, this means exactly one alpha channel
Aspect ratio:	1:1
Margin:	Are optional, with a recommended minimum of 1% or 10 pixels, and a maximum of 10% or 100 pixels
Border:	No white border
Clipping path:	Yes, with the name 'Path 1'
File naming:	GTIN based (see paragraph 3.1)

referencedFileTypeCode: PRODUCT_IMAGE

Please note! There may be a maximum (MB) for the size of the file. This maximum depends on the storage location that is used.

1.2 Differences between the industries

Food, health and beauty

Product view:

View:	At least one straight-on front shot, except for a few products (see 2.6.1).
Plunge angle:	0º

Visual specifications:

Barcode:	If there is a specific barcode, e.g. in the case of pre-packed variable weight items with a price or weight in the barcode, remove it.
Best Before/Expiry date:	Remove if present
Variable weight:	Remove if present

DIY, garden and pets

We refer to chapter 2.6. for the advice of the sector on views and angles.

2 Product image specifications

All sorts of combinations of file format, resolution and size are used in end-user applications. It is not feasible to cover all the possible combinations with separate images. These specifications are assumed to be suitable for a variety of uses, including printed matter and websites.

2.1 Identifying the primary face

For the correct identification of products with multiple marketing faces it is important to identify which is the primary. To resolve this, refer to the existing standards for determining the default front found in the *GDSN Package Measurement Rules Standard*, from which the following excerpt is taken:

'For the purposes of this standard, the Default Front is the surface with the largest area that is used by the manufacturer to "sell" the product to the consumer, in other words, the surface with markings such as the product name and standard text elements such as Consumer Declaration (e.g. Net Content)…'

There is an exception in the case of products with more than one equally large front face, as these products can be presented both vertically and horizontally on the shelves. An image of both front faces is therefore required in these cases.

N.B. If the method of determining which is the front face for the image based on the measurement rules would be illogical, the manufacturer should decide which is the best front face.

2.2 Guidelines for image quality

The aim of the product image is to show the genuine product as true to life as possible. The following recommendations therefore apply to the capture and processing of good-quality images:

- Colour-accurate image.
- Realistic reflections.
- Realistic, neutral shadows.
- Retouching (e.g. removing expiry dates) should be done as seamlessly and invisibly as possible.
- A rendered image (converted from 3D to 2D) is permitted.
- Large depth of field so that the whole product is in focus.
- Even lighting.
- Mirroring is permitted if the product is symmetrical.
- Place the product in the centre, with an optional margin of between 1 and 10%.
- The dimensions on the image match the real dimensions of the product.
- No weight or barcode on images of variable weight products.
- The product shown on the image must be the same as the product that is being sold.
- Transparent background.
- <u>Not</u> permitted:
  - Colour casts.
  - Alpha channels (enabling a product to be reproduced partially translucent, only one is allowed for transparent background) or layers, guides or rulers.
  - Transfer functions or PostScript colour management.
  - Visible scratches, dust, dents, damage or fingerprints.
  - Artificial reflections or reflections of objects outside the product.
  - Artificial shadows or shadows of objects outside the product.
  - Signatures, 'finger printing' or visible watermarks.
  - Images scanned from printed pages.
  - Compression artefacts (non-lossless compression changes transitions from sharp to frayed and/or causes blotchy appearance).
  - Artificial enlargement (interpolation).
  - Moiré patterns (interference patterns due to inadequate sampling of a fine pattern) or other minimisation.

- ○ Year or date (e.g. on a wine bottle), unless the year or date is the reason for the different GTIN.
- ○ Props, persons, animals, aids or other products on the image.
- ○ Product-specific information or transaction data (Best Before date, expiry date, batch number, lot number etc.) on the image, unless this is needed for clarification.
- ○ Price on the image.
- ○ Stickers on the image, e.g. 'Fragile' or 'Special Offer'.

2.3   Clipping paths

A clipping path is used to separate an object from its background on an image. It is a collection of vectorised points (anchor points) placed over an image. Ensure that all images contain one active clipping path, properly created, in order for the product to be silhouetted.
To make a clipping path in an automated way, it is necessary that a margin is present.

Advantages of using a clipping path are:

- -   Least susceptible to errors.

- -   Scalability and a nice, flowing margin.

- -   Can be used in many layout, editing and animation programs.

To facilitate batch automation, it is very important that the clipping path be named 'Path 1' (note capital letter and space). The flatness setting (the number of anchor points used to create the clipping path) must be 1 (low resolution).

2.4   Image size

It has been decided to exchange high-resolution images in both industries. The minimum number of pixels of the product image depends on the physical dimensions of that product.

The image size is different for small products:

- -   Products smaller than 6 cm: 900 - 4800 pixels

- -   Products smaller than 12 cm: 1200 - 4800 pixels

- -   Products greater then/equal to 12 cm: 2401 - 4800 pixels

The resolution is 300 dpi.

You should apply the largest value of the three dimensions (height, width and depth) as measurement value.

Also note:

- -   Image aspect ratio size to be 1:1 (square).

- -   No white border around the image.

- -   Image to be free-standing.
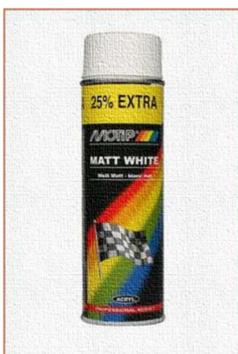
Fig. 2.1: Transparent background, no white border

2.5   File format and colour mode

File format: TIFF (LZW compressed)
Colour mode: RGB colour mode with alpha channel
The image should be supplied at the minimum image quality. Your trading partners can then decide for themselves whether to store the images in a different file format, e.g. as JPG or PNG files.

N.B. (1) The storage of the source file is RGB with alpha channel 8 bit per channel.
N.B. (2) Make all backgrounds transparent (exactly on alpha channel).

2.6   Product views

There are differences between the two industries here.

2.6.1   Product views for food, health and beauty

Multiple images can be exchanged, but it has been decided in this industry to photograph each product at least once straight-on front as sold in the store (packed products in the packaging), with a plunge angle of 0°.

Fig. 2.2: Straight-on front

Exceptions:

-       **Products with more than one front face** (e.g. front horizontal and back vertical) - an image of each way the product can be placed on the shelf is required.
-       **Multi-packs** - it is important for consumers to be able to see that the packaging contains multiple units: this requires a straight-on front shot and a shot taken at a 15° angle from the top left.
-       **White boxes** (as used in food service) - the box must be shown with the loose product (e.g. croquette) in front of it.

2.6.2   Product views for DIY, garden and pets

Due to the wide range of products within the sector, we ask to provide at least one of the following images. Which image this is exactly, and whether it is photographed in or out of the package, depends strongly on the item itself, as shown in the images below.

We advise to provide multiple images, and to contact your retailers to discuss the type of images that are best for which product.

	Front view	Side view, left or right	
In package	(GTIN)_C1N1	(GTIN)_C1R1	(GTIN)_C1L1
(with)out package	(GTIN)_C1C0	(GTIN)_F_s01	(GTIN)_C1L0

Note 1:
To make some products recognisable it is also necessary to supply an image of the back or underside. This is the case, for example, with three-piece suites, switches and top-class products. The same applies to products that need to be shown in use so as to clarify what the product does.

Note 2:
The 'oblique' angle is advised at 30º for side views and 10-15º for top views. For side views there is a tolerance of 10º at the top and bottom (i.e. between 20º and 40º is permitted). For the majority of products this is the advised angle, but we always recommend to keep a natural angle for the product in mind.

2.6.3   Incompatible products

Some products would seem to be incompatible with the above-mentioned standards, so they are listed here along with the rules agreed for them. The following rules apply solely to these product groups, unless a particular view has no added value for consumers. The omission of particular views should always be agreed with the retailer.

Products on a roll, such as carpet and wallpaper
These products must be partially unrolled on the 'oblique' images (photographed at an angle) so that the print is visible.

Products that are attached to something when in use, such as a garage door or a toilet roll holder
Photograph these free-standing.

Apparel
Photograph this not stuffed, straight-on front and straight-on back.

Longer products
These are permitted to overshoot the image on the left. Again, the top angle must be 10-15º and the angle at which the product overshoots the image must be 30º.

Measures of capacity
If a product has more than one measure of capacity (e.g. paint), take a unique photo of each size.

Colour
Take a unique photo of every colour variant of the product (e.g. paint).

Promotional packaging
If a product has a promotional packaging as well as a regular packaging, unique photos should be taken of both.

Volume products
Take a photo of the standard consumer unit plus one loose product (e.g. tiles). Say they are always sold in sets of four, take a photo of a stack of four tiles plus a close-up of a loose tile.

Light fittings
Take a photo with the light on, unless an image with the light off provides more information.

Handles (e.g. on a paint can)
Place handles to the back and do not crop them out.

Pumps/nozzles
Place these to the left.

2.7   Special product images

These special product images are extra images that can be provided as well. In general these follow the guidelines for primary images, as explained in chapter 2. Deviations from these general guidelines, are explained below.

2.7.1   360° product image

A 360° product image should be produced by rotating the product around a single axis with the camera taking shots at intervals of a defined number of degrees. All shots should be taken from the same angle to obtain a 360º image. The direction of rotation should be clockwise.

The minimum number of images is 24, the maximum 360. The sequence number should be included in the file name.

Important note: The image is minimum 400x400 pixels, with a resolution of 150 dpi
Important note: The format for 360° images is JPG/PNG
Important note: A clipping path is optional
Important note: referencedFileTypeCode = 360_DEGREE_IMAGE

2.7.2   Detail image

A detail image is a photograph, line drawing or other graphical representation of a particular product attribute. It is used to emphasise a particular detail or attribute of an item. Detail images also include photos of a small part of a consumer unit in the case of products that are too large to be shown in their entirety (timber or plastic panels or pipes).

Important note: The minimal image size for detail images is the same as for primary images, 900x900 pixels with a resolution of 300 dpi, and the maximal image size is 4800x4800 pixels
Important note: The format for these detail images is TIFF or JPG/PNG/GIF.
Important note: A clipping path is required.
Important note: referencedFileTypeCode = ZOOM_VIEW

(GTIN)_F_s02   (GTIN)_F_s02

Fig. 2.3: Detail image

2.7.3 Montage image

A montage is a set of images placed over one another in layers to produce a complete image. Examples are a screwdriver with a close-up of the handle, or a box of nails with one or more nails out of the package in the foreground. In other words, these are composite images.

Important note: The resolution of the smallest image in the composition must be 300 dpi.
Important note: All images must have an active clipping path.
Important note: referencedFileTypeCode = MONTAGE_IMAGE

(GTIN)_M1_s01   (GTIN)_M1_s01

Fig. 2.4: Montage image

2.7.4 Hero Images

This standard for Hero images is separate from the standard for product images for the food, health and beauty and the DIY, garden and pets industries.

Hero Images (short for Mobile Ready Hero Images (MRHI)) are product images that have been adapted for websites and smaller smartphone screens. Research by Cambridge University has found that the following product attributes need to be shown more prominently on smaller screens: brand, type of product, variant and size (weight, content or quantity). This can be achieved by editing the original product image, e.g. enlarging the brand name and removing superfluous text.

For detailed information see *https://www.gs1.org/standards/Mobile-Ready-Hero-Image/1-0*.

Mobile Ready Hero Images have specifications, that are different from the product images specifications above. These are:

Image size:	600 x 600 (minimum)
File resolution:	90 ppi
File format:	JPG of PNG
Colour space:	RGB color model with alpha channel
Background:	Different from the foreground in a sufficient way
Aspect ratio:	1:1 (square ratio)
Margin:	As less white space as possible
Clipping path:	No
referencedFileTypeCode	MOBILE_READY_HERO_IMAGE

Important note: Although the original packaging is modified, a Hero Image must be such that consumers can still recognise the product.

(GTIN)_H1N1_en

(GTIN)_H1N1

Fig. 2.5: Mobile Ready Hero Image

3 File name specifications

A large part of the standard for images relates to the agreed file naming rules, which indicate such things as what view of the product should be shown on the image.

These naming specifications specifically apply for the name as it is provided in the GDSN attribute 'fileName' (see chapter 4 for more details).

The two file naming methods for images are GTIN based and GDTI (Global Document Type Identifier) based.

- GTIN based file naming should be used when the image contains a single item, which can be identified with a GTIN.

- GDTI based file naming should be used for items not identified with a GTIN (e.g. RCN identified items in apparel, images containing multiple different GTINs/products) and where a single image can be used for multiple products/items.

The specifications for product image file naming are set out below, here confined to GTIN based file naming.

3.1 Primary Images

3.1.1 Product Image (low and high resolution)

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16	A	Product images (900 to 2,400 pixels per side)	An image of the product
	C	Product image (high resolution) (2,401 to 4,800 pixels per side)	
17 Only one value is permitted.	0	Not applicable	View
	1	Front face	
	2	Left	
	3	Top	
	7	Back	
	8	Right	
	9	Bottom	
18	C	From above	Plunge angle: angle reference relative to the face being represented.
	L	Left View	
	R	Right View	

Position in the file name	Value	Description	Explanation
18	N	No plunge angle	
19	1	In Packaging	
	0	Out of packaging	The product as it first arrives 'out of packaging', not how it appears after it has been processed or prepared.
	A	Case	A shot of the product in its case as it would appear to the operator upon delivery.
	B	Innerpack	A shot of the product as it would appear inside its packaging inside the case.
	C	Raw/uncooked	A shot of a product that has not been cooked or processed or that needs to be cooked or further prepared before it is considered edible.
	D	Prepared	A shot of a product that has been taken from a raw or uncooked state to a cooked state according to the appropriate method of preparation (e.g. baked, fried, grilled or boiled).
	M	Open case	A shot of a case, flaps open, that shows how the product would look when an operator receives the product and opens the case.
	P	Pallet/Display	An image comprised of the product in a display or pallet configuration.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
20	_	Underscore	
21+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	MMJJ	Image end date/promotional (4 character numeric)	MMYY that the image is valid until (i.e. if good until 1217 (Dec 2017) then to be removed after 1 January 2018).
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.

Position in the file name	Value	Description	Explanation
21+	R	Rendered Image	The result of the creation of a digital likeness of a physical object with the use of a computer and software.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.1.2 Product Image with supporting elements (low & high resolution)

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16	B	Product image with supporting elements	File nature/type (simple designation, alphanumeric). This section is dynamic (subject to frequent updates).
	D	Product image with supporting elements (high resolution)	
17 Only one value is permitted.	0	Not applicable	
	1	Front face	
	2	Left	
	3	Top	
	7	Back	
	8	Right	
	9	Bottom	
18	C	From above	Plunge angle: angle reference relative to the face being represented.
	L	Left view	
	R	Right view	
	N	No plunge angle	
19	1	In packaging	
	0	Out of packaging	The product as it first arrives 'out of packaging', not how it appears after it has been processed or prepared.
	A	Case	A shot of the product in its case as it would appear to the operator upon delivery.
	B	Inner pack	A shot of the product as it would appear inside its packaging inside the case.

Position in the file name	Value	Description	Explanation
19	C	Raw/uncooked	A shot of a product that has not been cooked or processed or that needs to be cooked or further prepared before it is considered edible.
	D	Prepared	A shot of a product that has been taken from a raw or uncooked state to a cooked state according to the appropriate method of preparation (e.g. baked, fried, grilled or boiled).
	E	Plated	Prepared food arranged simply on a serving plate, dish or bowl for better visibility. May include an additional step, such as garnishing or other enhancement.
	F	Styled	Carefully and artfully arranged for an attractive visual presentation, and designed to suggest the taste, aroma and appeal of the actual dish. May include complementary items (e.g., an entrée and side sides) to present the impression of a complete meal. May also include an additional step, such as garnishing or other enhancement. May be presented with different backgrounds and at different angles.
	G	Staged	A shot of a product that has been arranged for display in such a way as to provide clear visibility. The product may be propped up if necessary for optimum viewing, but it should not be held or used in any way by a person.
	H	Held	A shot of a product that has been held out for display by one hand or a pair of hands. When relevant, proper grip should be demonstrated. Apart from the hands and forearms, no part of the person holding the item should be visible.
	J	Worn	A shot of a product, such as a protective article of clothing, which is worn by a person. The complete product should be visible inside the frame, but the individual wearing it should be cropped out as much as possible.
	K	Used	A shot of a product as it is meant to be used in its appropriate environment. Small utensils may be held in a hand or hands and used for their intended purpose.
	L	Family package	A shot of a number of related products (e.g., matched sets) arranged together in a single picture.
	M	Open case	A shot of a case, flaps open, that shows how the product would look when an operator receives the product and opens the case.
	P	Pallet/Display	An image comprised of the product in a display or pallet configuration.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
20	_	Underscore	
21+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	MMJJ	Image end date/promotional (4 character numeric)	MMYY that the image is valid until (i.e. if good until 1217 (Dec 2017) then to be removed after 1 January 2018).
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	R	Rendered Image	The result of the creation of a digital likeness of a physical object with the use of a computer and software.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.2   Optimised Images

3.2.1   Mobile Ready Hero Images

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	

Position in the file name	Value	Description	Explanation
16	H	Mobile Ready Hero Image	
17	1	Front	
18	C	From above	Plunge angle: angle reference relative to the face being represented.
	L	Left view	
	R	Right view	
	N	No plunge angle	
19	1	In packaging	
	0	Out of packaging	The product as it first arrives 'out of packaging', not how it appears after it has been processed or prepared.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
20	_	Underscore	
21+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.

Position in the file name	Value	Description	Explanation
21+	MMJJ	Image end date/promotional (4 character numeric)	MMYY that the image is valid until (i.e. if good until 1217 (Dec 2017) then to be removed after 1 January 2018).
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	R	Rendered Image	The result of the creation of a digital likeness of a physical object with the use of a computer and software.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.2.2 Optimised Hero Image

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	-	Underscore	
16	U	Optimised Hero Image	An image of the product, with additional elements that do not belong to the product sale, but are intended to show the properties of the product. Example: with a bottle of wine (GTIN) a glass of wine and a bunch of grapes next to it.
17 Only one value is permitted.	0	Not applicable	
	1	Front face	
	2	Left	
	3	Top	
	7	Back	
	8	Right	
	9	Bottom	

Position in the file name	Value	Description	Explanation
18	C	From above	Plunge angle: angle reference relative to the face being represented.
	L	Left view	
	R	Right view	
	N	No plunge angle	
19	1	In packaging	
	0	Out of packaging	The product as it first arrives 'out of packaging', not how it appears after it has been processed or prepared.
	A	Case	A shot of the product in its case as it would appear to the operator upon delivery.
	B	Inner pack	A shot of the product as it would appear inside its packaging inside the case.
	C	Raw/uncooked	A shot of a product that has not been cooked or processed or that needs to be cooked or further prepared before it is considered edible.
	D	Prepared	A shot of a product that has been taken from a raw or uncooked state to a cooked state according to the appropriate method of preparation (e.g. baked, fried, grilled or boiled).
	E	Plated	Prepared food arranged simply on a serving plate, dish or bowl for better visibility. May include an additional step, such as garnishing or other enhancement.
	F	Styled	Carefully and artfully arranged for an attractive visual presentation, and designed to suggest the taste, aroma and appeal of the actual dish. May include complementary items (e.g., an entrée and side sides) to present the impression of a complete meal. May also include an additional step, such as garnishing or other enhancement. May be presented with different backgrounds and at different angles.
	G	Staged	A shot of a product that has been arranged for display in such a way as to provide clear visibility. The product may be propped up if necessary for optimum viewing, but it should not be held or used in any way by a person.
	H	Held	A shot of a product that has been held out for display by one hand or a pair of hands. When relevant, proper grip should be demonstrated. Apart from the hands and forearms, no part of the person holding the item should be visible.
	J	Worn	A shot of a product, such as a protective article of clothing, which is worn by a person. The complete product should be visible inside the frame, but the individual wearing it should be cropped out as much as possible.
	K	Used	A shot of a product as it is meant to be used in its appropriate environment. Small utensils may be held in a hand or hands and used for their intended purpose.
	L	Family package	A shot of a number of related products (e.g., matched sets) arranged together in a single picture.
	M	Open case	A shot of a case, flaps open, that shows how the product would look when an operator receives the product and opens the case.

Position in the file name	Value	Description	Explanation
19	P	Pallet/Display	An image comprised of the product in a display or pallet configuration.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
20	_	Underscore	
21+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	MMJJ	Image end date/promotional (4 character numeric)	MMYY that the image is valid until (i.e. if good until 1217 (Dec 2017) then to be removed after 1 January 2018).
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	R	Rendered Image	The result of the creation of a digital likeness of a physical object with the use of a computer and software.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.2.3 360° product image

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16	E	360° product image	
17 Only one value is permitted.	0	Not applicable	
	1	Front face	
	2	Left	
	3	Top	
	7	Back	
	8	Right	
	9	Bottom	
18	-	Underscore	
19	R	Row (plunge)	The 19-21st characters in the naming are 'R' and a two digit numeric plunge angle respectively. The plunge angle is measured from horizontal, with 0* placing the camera horizontally aligned with the product and 90* placing the camera perpendicular to the front face of the item.
20-21	00-90	Row number	The 19-21st characters in the naming are 'R' and a two digit numeric plunge angle respectively. The plunge angle is measured from horizontal, with 0* placing the camera horizontally aligned with the product and 90* placing the camera perpendicular to the front face of the item.
22	_	Underscore	
23	C	Arc Position Indicator	The image sequence should be identified in the image name, or associated data, and should follow the stitching sequence used to complete the 360° pattern or mapping.
24-25	01-24	Column Number	

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
26	_	Underscore	
27+	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.2.4   3D rendered

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16	3DR	3D rendered	A digitally created 3D image of the product.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
20	_	Underscore	
21+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	MMJJ	Image end date/promotional (4 character numeric)	MMYY that the image is valid until (i.e. if good until 1217 (Dec 2017) then to be removed after 1 January 2018).

Position in the file name	Value	Description	Explanation
21+	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	R	Rendered Image	The result of the creation of a digital likeness of a physical object with the use of a computer and software.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3 Secondary Images

3.3.1 Content / Texture

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16	T	Content/Texture	An image that shows the texture of a product

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
17	_	Underscore	
18+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	MMJJ	Image end date/promotional (4 character numeric)	MMYY that the image is valid until (i.e. if good until 1217 (Dec 2017) then to be removed after 1 January 2018).
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.

Position in the file name	Value	Description	Explanation
18+	R	Rendered Image	The result of the creation of a digital likeness of a physical object with the use of a computer and software.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.2   Detail Image

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16	F	Detail	Photo, line drawing or other graphic representation of a specific product characteristic.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
17	_	Underscore	
18+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	MMJJ	Image end date/promotional (4 character numeric)	MMYY that the image is valid until (i.e. if good until 1217 (Dec 2017) then to be removed after 1 January 2018).
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	R	Rendered Image	The result of the creation of a digital likeness of a physical object with the use of a computer and software.

Position in the file name	Value	Description	Explanation
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.3 Montage Image

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16	M	Montage Image	
17	1	Front face	
	2	Left	
	3	Top	
	7	Back	
	8	Right	
	9	Bottom	
18	_	Underscore	
19-21	sNN	Serialisation	Sequence Number (3 character alphanumeric)

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
22	_	Underscore	
23+	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.4 Social media

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16	K	Social media	

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
17	_	Underscore	
18+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	MMJJ	Image end date/promotional (4 character numeric)	MMYY that the image is valid until (i.e. if good until 1217 (Dec 2017) then to be removed after 1 January 2018).
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	R	Rendered Image	The result of the creation of a digital likeness of a physical object with the use of a computer and software.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.5   Application

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16	N	Application	

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
17	_	Underscore	

Position in the file name	Value	Description	Explanation
18+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	MMJJ	Image end date/promotional (4 character numeric)	MMYY that the image is valid until (i.e. if good until 1217 (Dec 2017) then to be removed after 1 January 2018).
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	R	Rendered Image	The result of the creation of a digital likeness of a physical object with the use of a computer and software.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.6 Ambience / Mood

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 artikelcode	
15	_	Underscore	
16	R	Ambience / Mood	

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
17	_	Underscore	
18+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.

Position in the file name	Value	Description	Explanation
	MMJJ	Image end date/promotional (4 character numeric)	MMYY that the image is valid until (i.e. if good until 1217 (Dec 2017) then to be removed after 1 January 2018).
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	R	Rendered Image	The result of the creation of a digital likeness of a physical object with the use of a computer and software.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.7   Size comparison

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16	Q	Size comparison	

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
17	_	Underscore	
18+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	MMJJ	Image end date/promotional (4 character numeric)	MMYY that the image is valid until (i.e. if good until 1217 (Dec 2017) then to be removed after 1 January 2018).
18+	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.

Position in the file name	Value	Description	Explanation
	R	Rendered Image	The result of the creation of a digital likeness of a physical object with the use of a computer and software.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.8 Nutritional label

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16-17	L2	Nutritional label	This is the nutritional table on the packaging.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
18	_	Underscore	
19+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.9 Ingredients

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16-17	L4	Ingredients	This is the ingredient declaration on the packaging.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
18	_	Underscore	
19+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
19+	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.10 Nutritional / Ingredients combined

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16-17	L5	Nutritional / Ingredients combined	These are the nutritional table and the ingredient declaration on the packaging.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
18	_	Underscore	
19+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.11 QR-code

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16-17	L6	QR-code	This is the QR code present on the packaging.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
18	_	Underscore	

Position in the file name	Value	Description	Explanation
19+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.12 Certification Seal / Claims

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16-17	L7	Certification Seal / Claims	These are the certification seals , claims and logos present on the packaging.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
18	_	Underscore	
19+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.

Position in the file name	Value	Description	Explanation
19+	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.13 Preparation instructions

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16-17	L8	Preparation instructions	These are the preparation instructions present on the package.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
18	_	Underscore	
19+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
19+	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.14 Petfood feeding instructions / ingredients

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16-17	L9	Petfood feeding instructions / ingredients	These are the instructions and ingredients on the packaging of petfood.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
18	_	Underscore	
19+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.15 Safe handling instructions

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16-18	L10	Safe handling instructions	These are the safe handling instructions on the packaging.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
19	_	Underscore	
20+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.3.16 Sidekick Image

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16	S	Sidekick	This is an additional image, often intended to support the Hero Image.

Optional value

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
17	_	Underscore	

Position in the file name	Value	Description	Explanation
18+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.4 Technical images

3.4.1 Full Flat

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16-17	L1	Print lay-out	This is the print layout of the entire packaging.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
18	_	Underscore	
19+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.

Position in the file name	Value	Description	Explanation
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.
	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.4.2   Barcode(s)

Position in the file name	Value	Description	Explanation
1-14	GTIN	GS1 trade item number	
15	_	Underscore	
16-17	L3	Barcode	Dit is de aanwezige barcode(s) op de verpakking.

Optional values

Add an underscore between all the extra elements (these are optional).

Position in the file name	Value	Description	Explanation
18	_	Underscore	
19+	(aa) of (aa-AA)	Language Indicator (ISO-639, 2 character alphanumeric)	Example of French version:(GTIN)_A1L1_**fr** Example syntax for populating a country variation of a Language Indicator attribute: aa or optionally aa-BB where aa = ISO 639 code list, must be lower case where BB = ISO 3166-1 Country Code, 2 Alpha character representation, must be upper case to be used only if multiple faces of dissimilar languages occur.
	sNN	Sequence Number (3 character alphanumeric)	Lowercase 's' followed by numeric digits for sequence number will be added at the end of file name with the following format: underscore, lowercase 's' and then two mandatory numeric digits.

Position in the file name	Value	Description	Explanation
19+	CPV (an..20)	Consumer Product Variant number as identified in GDSN	

3.5   Examples

N.B. (GTIN) in the examples represents the product's GTIN (14 characters).

(GTIN)_C1L1
Product image/Front face/
Left/In packaging

(GTIN)_C1C1
Product image/Front face/
Front/In packaging

(GTIN)_C1R1
Product image/Front face/
Right/In packaging

Fig. 3.1: Construction of file name for product in packaging (where it cannot be photographed out of packaging)
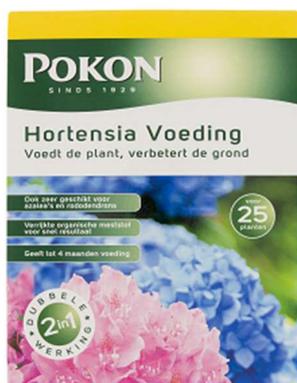
(GTIN)_C1N1
Product image/Front face/
No plunge angle/In packaging

(GTIN)_C2N1
Product image/Left side/
No plunge angle/In packaging

(GTIN)_C3N1
Product image/Top/
No plunge angle/In packaging

Fig. 3.2: File name construction for product in packaging (this item is not photographable out of its packaging, therefore shelf management photos also show it in its packaging)

The filename (GTIN)_C1N1 always applies for food, health and beauty, apart from the exceptions listed in 2.7.

(GTIN)_C1C1   (GTIN)_C7C1

Fig. 3.3: Product with more than one marketing face (the highest vertical face is shown as '1')

In both industries in the case of products with multiple front faces the left image of the product has the file name (GTIN)_C1C1, based on the 'Portrait before landscape' rule in the international measurement rules. The right file naming (GTIN)_C7C1 is used for the additional (landscape) front face.

(GTIN)_C1L1_nl   (GTIN)_C1L1_fr

Fig. 3.4: Same product in dissimilar languages

(GTIN)_C1L1   (GTIN)_C1L1_0109

Fig. 3.5: Promotional end date for time-specific packaging

(GTIN)_D1CK   (GTIN)_D1N1

<u>Fig.3.6</u>: Product image with supporting elements

4   Attributes and exchange of product images via GDSN

The different sectors in the Benelux have agreed to exchange product images via GDSN. The attributes used for this exchanges are harmonised across the sectors, just like this manual. The following fields can be used, the separate namings (and FieldID's for DIY, Garden & Pet) are only used for clarification.

GDSN-attribute	Name in DIY, Garden & Pet datamodel	Name in FMCG / L&D datamodel
referencedFileTypeCode	6.445 Type of external source	Type of external source
uniformResourceIdentifier	6.446 URL of external source	URL of the external source
fileLanguageCode	6.447 URL external source language code	Language code of the document
fileName	6.448 File name of external source	File name of external source
fileEffectiveEndDateTime	File effective end date time	File effective end date time
fileEffectiveStartDateTime	File effective start date time	File effective start date time

The attributes concerning end and start date, as well as language code, are optional and not mandatory.

These attributes are situated in the module "referencedFileDetailInformation" within the XML-structure.

5   Appendix

5.1   Glossary

Name	Definition
Alpha channels	An alpha channel is part of an image enabling it to be reproduced partially translucent. The process involved is known as 'alpha blending': the image is combined with a background so that it appears to be transparent.
Clipping path/clipping mask	A clipping path or clipping mask is a selection and cut-out of part of the original complete image. Creating a clipping path involves taking a photo of the project free-standing, then separating (cutting) the product from the background to give it a transparent background.
Compression artefacts	Compression artefacts are caused by non-lossless compression. Highly compressed JPEG photos in particular have sharp transitions, e.g. a blotchy or frayed appearance in the case of text. The JPEG compression mechanism often causes these artefacts to occur in 8 x 8-pixel patterns.
DPI	DPI is the unit of resolution, expressed in pixels per linear inch. The standard for colour images in printed matter is 300 dpi, so we require 300 dpi for our omnichannel channels. Right-click the photo and select Properties to see how many dpi it is. In Adobe Photoshop go to Image > Image size and enter 300 dpi under Resolution. Check that the width and height change automatically at the same time, otherwise the quality of the image will suffer.
RGB color model with alpha channel (also known as Adobe RGBA colour space)	The colour of a pixel is defined as the sum of its blue, red and green values. By 'blending' these colours virtually any colour can be created. The A stands for Alpha, which represents the degree of transparency (1 is 0º transparency, 0.5 is half-transparent, and so on). Standards are needed to ensure that different devices such as a camera, computer, monitor and printer reproduce colours the same way. Adobe RGBA is a colour space developed by Adobe Systems Inc. which is in general use as a standard.
LZW compressed	LZW stands for Lempel-Ziv-Welch, the names of the three creators of this data compression technology. It reduces the size of the image without loss of data. Thus all the data is included in the file and quality is preserved. Smaller files can be downloaded faster and require less disk space. LZW is one of the most popular compression algorithms and is used in many programs and image formats.
Moiré patterns	Moiré is a kind of digital artefact that occurs when two patterns intersect, forming a new pattern. As the new pattern is always coarser than the two original ones, the shape changes depending on the screen frequency and angle. The finer the two original patterns, the easier the moiré is to see.
Transfer functions	Transfer functions are generally used to compensate for the point widening or narrowing that occurs when an image is transferred to film. Point widening is when the ink dots comprising a printed image are larger than in the halftone raster (e.g. as a result of spreading out on the paper). Point narrowing is when the dots are printed smaller. In this option the transfer functions are applied to the file when this is done.

Name	Definition
Photoshop layers	Photoshop layers can be compared with sheets of transparent paper on top of one another. The underlying layers can be seen through the transparent parts of an upper layer. A layer can be moved to change the position of its content, just as a sheet of transparent paper in a stack can be moved to a different position. The coverage of a layer can also be changed so as to make the content partially transparent.
PostScript colour management	This converts file data to the printer's colour space. This option cannot be used if the image has to be included in another document with colour management.
TIFF file	TIFF is the best-quality file format for digital images, specifically designed for unedited/original files. It can be compressed, thus reducing the file size. TIFF format does not involve any loss of quality and can be opened by many programs. It can be selected in most programs under 'Save As'. EPS files are used for vectors; JPG files involve loss of quality.