GS1 Germany

The Global Language of Business

GS1 Standards

Product Images and Media Assets

for Strategic Brand Management and Successful Content Marketing – FMCG

Version 4, December 2025

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Log of changes

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GS1 Germany at a glance

It started with a beep.
1974 was the year that a barcode was scanned for the first time by a supermarket. This was the beginning of the automated check-out – and the first chapter in GS1's success story. The machine-readable GS1 barcode, which also includes the GTIN, has since become the universal standard in the global exchange of goods. Six billion of these barcodes are scanned on products each and every day. The GS1 standards are the global language for efficient and secure business processes – a language that is spoken between different companies and across all continents. As part of a global network, we work with our customers and partners to develop market-driven and future-oriented solutions that have a direct impact on the success of their business. Today, two million companies from over 20 sectors worldwide use this language to uniquely identify their products, sites and assets, so that they can collect relevant data and share it with business partners within value-added networks. GS1 – The Global Language of Business.

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1 Introduction

1.1 Objectives of the specifications

The digital presentation of products is a critical success factor in omnichannel.

This document describes specifications for the production of product images and media assets as well as the standard for naming the media files. The requirements have been developed together with experts from the areas of photography, marketing, e-commerce, and print and asset management from industry and retail. As well as uniform creation and processing of media assets, areas of application also include 360-degree views for online shops or in-store TV, views for shelf optimisation and advertising images from a wide variety of perspectives for use in marketing.

1.2 Target group

The document is intended for all those who are responsible for marketing and information technology to ensure the media asset supply for strategic brand management and content marketing in the systems of their organisation.

1.3 Scope

The document was developed in collaboration with stakeholders of the FMCG sector, and therefore its validity is in the areas of food, near-food, non-food and DIY.

2 Specifications for the production of product images and media assets for the German target market

Product images are used synonymously in this document for the terms photos/pictures, planograms, and montage images. Renderings (product images generated from packaging data) are also permitted. If the content refers only to one of these special forms, these are explicitly mentioned, for example, information on photography or specific product images for Web and e-commerce applications (montage images).

2.1 Image and file specifications

If the product image is a photograph, precise selection of the product sample should be made first. It is important to ensure that the samples are clean and damage-free, and contain no breaks, cracks, fingerprints, glued label or similar. Also, the sample should be typical of the product insofar as the weighted and measured values correspond to the requirements of the manufacturer. If the samples are sent by post or courier, they should be packaged with suitable protection and undamaged.

2.1.1 Front view

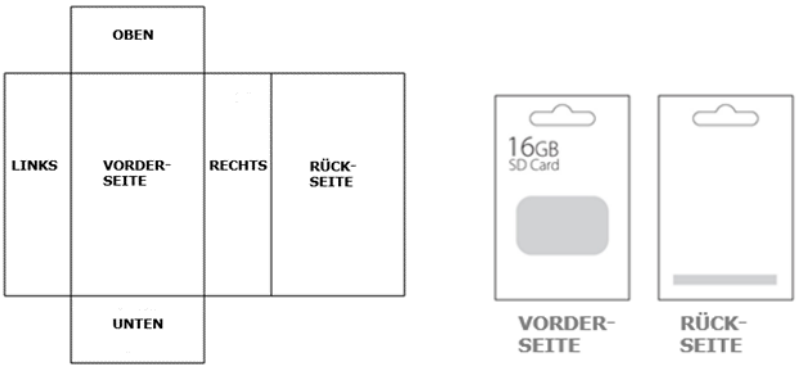
The front view of a product is the starting point for additional images. This is defined for consumer units using the package measurement rules of GS1 (GDSN Measurement Rules).

According to the measurement rules, the front side of a **consumer unit** is the side with the largest surface area, which is used by the manufacturer to advertise the product to the consumer. This is, for example, the side with the indication of the product name. Additional guidance on determining the front is described in the document "Measurement rules for packaging" (see Chapter 2.4).

For **unpackaged goods** (e.g. fresh food, DIY), the measurement rules do not exist or are not completely described.

The depiction of the **trade units** may vary due to different use cases (shelving units, trays, etc.) and should be defined for each application purpose by the manufacturer.

All other sides for both the consumer unit and trade unit can be derived on the basis of the defined front view of the product:



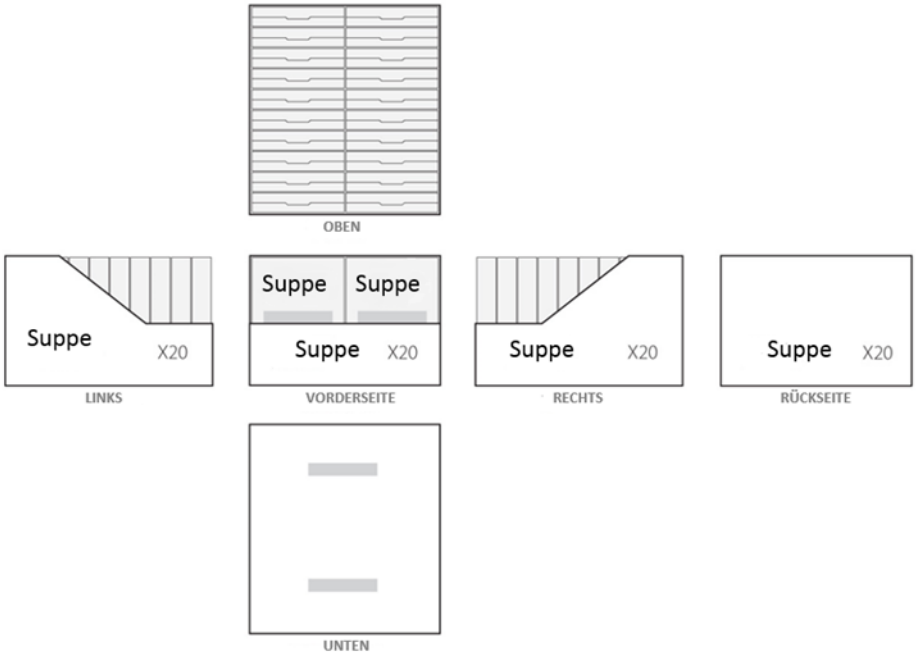


Figure 1: Views for product images

2.1.2 Image properties

The image should have the following properties:

- No alpha channels or layers
- No rulers or guide lines
- No bubbles or light and dark zones
- No transfer function or post-script colour management
- No imprints
- No fingerprints or visible watermarks
- No compressed products
- Preferably no interpolation (‘resizing up’, no visible artefacts)
- No scanning from printed pages
- No evidence of dust or scratches
- No manufactured shadows
- Moiré patterns should be minimised
- No vintage data (e.g. for wine)
- No production-specific information such as best before date, batch numbers or competition codes
- No item-specific labels, i.e. labels that contain a check number or a validity period, such as those from Stiftung Warentest, Ökotest
- It is recommended to make the labels available to the user as a separate graphic file
- No product-independent information (e.g. recipe of the week, indications of promotions)
- No reflections where possible

- No representation of size ratios on individual article level

2.1.3 Colour and quality

A media-independent depiction of the products in compliance with the corporate identity and the corporate design of the respective manufacturer is recommended.

2.1.4 Clipping path (activated cut-out path)

The product image should contain exactly one clipping path. Preferably, the clipping path should be created manually and marked by name (e.g. as 'Pfad 1' or in the local language 'Path 1', etc.). The clipping path must be closed and surround the entire product.

Figure 2: Example for clipping paths

The recommended rounding tolerance value is 1 pixel and maximum 10,000 individual points, but this is not strictly necessary.

Explanation:

Cut-out path:

The cut-out path should preferably be created manually using a path tool in an image-editing program, such as Photoshop. In this way, information on which areas are intended to be displayed in the layout as cut-outs can be added. By implication, all areas outside the path are hidden during further processing.

Clipping path:

A clipping path is required so that a layout program can use the cut-out of an image directly and, accordingly, hide all areas outside the path. This means that the desired image can be specifically cut out in order to remove it from the original background and then position it in front of any desired background. Cut-out images can be used for image compositions on the one hand and for depictions on a white or individual background on the other. In applications such as Photoshop, a cut-out path must be actively defined as a clipping path so that it is set for the further processing described.

2.1.5 Backgrounds

All products are presented on a neutral background. This means that the product must be isolated from the background, e.g. by being coloured white. Props, tools, people and additional items may also not appear in the product image. Exceptions are made for non-food products, for which a sole image is not sufficient.

2.1.6 Border

The image should be centred in such a way that any borders take up a maximum of 5% of the working area and the background is white.

2.1.7 Format for the end user

Due to the numerous possible combinations of the format, the sizes and the resolutions, not all possible combinations are listed in these recommendations for use.

The recommendations of these specifications are aimed at a high-quality product image and based on the latest technical possibilities. This allows the creation of a central image source in maximum image quality, out of which the required qualities and formats for the end user are created.

2.1.8 Packaging

Due to the variety of products and the different requirements, precise specification is not possible here. The decision on whether a product is shown with or without packaging is left to the discretion of the manufacturer of the product. Notes concerning the packaging can be displayed via the metadata (*see Chapter 2.5 Metadata*).

Figure 3: Product images with and without packaging (At the consumer unit level, this is usually the packaging with data carriers (barcode, QR code, etc.) that goes through the POS. Examples: the tube, the cup, the can, etc.)

For this kind of product images, a perspective from slightly above is recommended.

More details on images with compositions, i.e. images that show both the packaging and the content, can be found in *Chapter 2.2.4 Secondary product images.*

Images of products without packaging (e.g. non-prepackaged food such as fruit) are classified as secondary images. In general, images of unpackaged products are only expected for items that are published with the packaging type = 'NE - unpackaged'. As a rule, such images do not contain any information such as a logo, graphic symbol or graphic representing the brand or company, nor do they contain a product name. Such secondary images have the image category 'T' - content/texture. The code value in 'File: Code [M379]' is not expected to be "PRODUCT_IMAGE", but 'CONTENT_TEXTURE_IMAGE'.

Terms of use / Liability disclaimer

Only image files for which the business partner can be granted unrestricted usage rights may be provided.

The client is thus granted usage rights unrestricted in terms of place and time for the images created, in order to advertise and market the product shown offline and online.

Further information on this can be found in *Chapter 2.5 Metadata*.

2.2 Requirements for modern product depictions in omnichannel marketing

Depending on the aim, the following solutions are recommended in order to meet the requirements for modern product depictions in omnichannel marketing:

- *Product images for consumer units incl. path cut-outs*
- *Product images for trade units*
- *Mobile-ready hero image*
- *Secondary images*
- *360° turn of consumer units*
- *Packaging information*
- *Special cases*

To meet these specific requirements, providing four product images optimised for advertising is recommended. If more detailed information or a better product depiction is required, providing an additional 360° turn is recommended.

At least one primary image must be supplied in the data exchange via the GDSN.[1]

The manufacturer is responsible for the final decision on which additional product images will be selected.

Additional image categories that go beyond the product image types described in this documentation can be found in the global GS1 image standard (GS1 Image Product Specification Standard):

https://www.gs1.org/standards/gs1-product-image-specification-standard/current-standard

Exchange of these additional product images should be coordinated in advance with the partner.

A product image alone only fulfils the image requirement for data exchange in GDSN® and is not sufficient for the GS1 DQX visual inspection. A detailed explanation of the differences can be found in the fact sheet: 'Image provision for a GS1 DQX visual inspection and for data exchange in GDSN® in accordance with image standards' at:

https://www.gs1-germany.de/gs1-solutions/stammdaten/produktdatenmanagement/download-center/

A placeholder (dummy) should not be delivered in data exchange via GDSN.

Figure 4: Dummy - Product image with incomplete view

A dummy is a product-like, incomplete view of product packaging that does not show the actual item. As a rule, there is no information such as a logo, graphic symbol or graphic representing the brand or company, nor is there a product name on the image.

[1] Ensure detailed requirements regarding the *DQ Standard*: Data quality in the German GDSN target market

2.2.1 Product images for consumer units

At least one image, in which the front side of the product is shown with a perspective from slightly above (see *Chapter 2.3 File name construction Depiction of the product image C1C1*), should be provided. In addition, further images from different viewpoints can be provided according to the specifications in *Chapter 2.3*.

A frontal shot without perspective is recommended for planograms and products with shallow depth (e.g. pouch products, CDs/DVDs etc.), among other items. For planograms, differentiation between the images in terms of quality and size is not recommended.

Ideally, additional images of the side views, back view and a depiction of the bottom, insofar as these contain information relevant for the users, should be provided. A cut-out of the product is essential for planograms.

A primary image is the sole image of the physical, real product (with clipping path). Ideally, it is the complete front view of a product package. Such images usually contain information such as a logo, a graphic symbol or a graphic representing the brand or company. The product name is also usually indicated on the primary image. The code value for the primary image in 'File: Code [M379]' is expected to be 'PRODUCT_IMAGE'. The image category should be "C1C1" - front view with perspective or 'C1N1' - front view without perspective.

Figure 5: Consumer unit – front in perspective view (C1C1)[2]

Figure 6: Consumer unit – bottom with relevant product information (C7N1)

[2] C1C1 is the image category. The image category is an abstract description of the individual product image types. The abbreviation encodes information such as perspective, the product side shown, product image type, etc. It is defined in the global image standard of GS1 Product Image Specifications. The image categories used in the target market of Germany are described in Chapter 2.3 File name construction within *Figure 2 – 34: Type of product image*.

Figure 7: Consumer unit for planograms – front without perspective (C1N1)

2.2.1.1 File format

JPEG format with a compression factor of 12 in maximum quality is recommended

2.2.1.2 Colour mode

ECI RGB V2 colour mode with 8 bits per channel

2.2.1.3 Image size

- A value of 2,401 pixels at 331 ppi is recommended as a minimum requirement for the image size, i.e. the pixel height or width should have a value of at least 2,401 pixels;
- in order to ensure printing capability of A0 formats, a value of 4,800 pixels at 300 ppi is recommended (each according to GS1 Product Image Specification).

The final decision on the applicable image size, taking the technical circumstances into account.

2.2.1.4 File resolution

300 ppi

2.2.2 Product images for trade units

Due to a wide variety of applications (shelving units, trays, etc.), the front view of the retail unit is defined by the manufacturer. However, it is recommended to follow the presentation in

Chapter 2.2.1 Presentation of the consumer unit and to observe the specifications in Chapter 2.3 Structure of the file name for the presentation of the product image.

It is strongly recommended to provide product images for retail units, as case images are also required for internal processes in retail (e.g. planning shelf layouts, shelf stocking). In addition, carton units are also sold as sales units, which is why these product images are advantageous for advertising the cartons in online shops.

Images for planograms must always be shown from a frontal perspective.

Figure 8: Product image of an opened or unpackaged tray (C1CM)

For all other applications, a slightly elevated perspective with a rotation (e.g. of 15–20 degrees) is recommended.

Figure 9: Product image of an opened or unpacked tray (C1LM)

Figure 10: Product image of a shelf-ready box with opened lid (C1LM)

Figure 11: Product image of a closed box (C1LA)

2.2.2.1 File format

JPEG format with a compression factor of 12 in maximum quality is recommended.

2.2.2.2 Colour space

ECI RGB V2 colour mode with 8 bits per channel

2.2.2.3 Image size

- A value of 2,401 pixels at 331 ppi is recommended as a minimum requirement for the image size, i.e. the pixel height or width should have a value of at least 2,401 pixels;
- in order to ensure printing capability of A0 formats, a value of 4,800 pixels at 300 ppi is recommended (each according to GS1 Product Image Specification).

The final decision on the applicable image size, taking the technical circumstances into account.

2.2.2.4 File resolution

300 ppi

2.2.3 Optimised images

Two kinds of optimised images are described in these recommendations for use: Mobile-ready hero images and optimised hero images.

2.2.3.1 Depiction of the mobile-ready hero image

The mobile-ready hero image has been specially developed for e-commerce and should be used for mobile (smaller) depiction in particular. The mobile-ready hero image is a realistic depiction of the item, but is considerably simplified in comparison to the classic product image of the consumer unit (see Chapter 2.2.1): it is reduced to the depiction of the core product features and characteristics (**4W**: **w**ho is the brand, **w**hat is the product, **w**hich variety is it and ho**w** much). Product name (e.g. Pampers Baby Dry), layout/design (green heart), version (nappy size 5) and product contents (23: in the Pampers size 5 saver pack there are 23 nappies). In this way, the mobile-ready image gives the user quicker product perception than the classic product image.

The specifications for these product images in terms of format, image size, colour space and resolution match the values established in *Chapter 2.2.1 Product images for consumer units*.

Figure 12: Examples of mobile-ready hero images

2.2.3.2 Depiction of the optimised hero image

Optimised hero images have also been developed for e-commerce. However, there is no direct relation to screen size. What makes an optimised hero image special is the highlighting of specific information via the product. This can be a certain pack size, flavour/fragrance, or, as in the following example, a certain area of application (for adult cats, different breeds, good for the muscular system).

Figure 13: Example of an optimised hero image

The following chapters describe the image properties for both mobile-ready hero images and optimised hero images:

2.2.3.3 File format

JPEG format with a compression factor of 12 in maximum quality is recommended

2.2.3.4 Colour mode

ECI RGB V2 colour mode with 8 bits per channel

2.2.3.5 Image size

A value of 600 pixels at 331 ppi is recommended as a minimum requirement for the image size, i.e. the pixel height or width should have a value of at least 600 pixels;

2.2.3.6 File resolution

300 ppi

2.2.3.7 Clipping path

The product image should contain exactly one clipping path. Preferably, the clipping path should be created manually and marked by name (e.g. as 'Pfad 1' or in the local language 'Path 1', etc.). The clipping path must be closed and surround the entire product.

Further information on the clipping path can be found in Chapter 2.1.4 Clipping path (activated cut-out path)

2.2.4 Secondary product images

The secondary images go beyond the classic product image and show product-specific images containing further information for the consumer, or relevant features that could positively influence a possible purchase decision.

The file/image properties below apply across all secondary product images described in the following chapters:

2.2.4.1 File format

JPEG format with a compression factor of 12 in maximum quality is recommended.

2.2.4.2 Colour mode

ECI RGB V2 colour mode with 8 bits per channel

2.2.4.3 Image size

A value of 600 pixels at 300 ppi is recommended as a minimum requirement for the image size, i.e. the pixel height or width should have a value of minimum 600 to maximum 4,800 pixels.

2.2.4.4 File resolution

300 ppi

2.2.4.5 Clipping path

The clipping path is optional. In certain cases, it makes sense to add a clipping path, for example when the product is depicted on a technical background or a cut-out excerpt from the image is suitable as an individual image.

If a clipping path is included, the following should apply:

The product image should contain exactly one clipping path. Preferably, the clipping path should be created manually and marked by name (e.g. as 'Pfad 1' or in the local language 'Path 1', etc.). The clipping path must be closed and surround the entire product.

Warning: Activated cut-out paths in a secondary image only show the cut-out content in production, which does not reflect the intended effects (e.g. mood/ambience).

2.2.4.6 Composition

The 'composition' image type shows images depicting the items packaged or unpackaged. The image can comprise several individual images. Products can be depicted with contents/flask/can/pen with cap closed or open. Another variant of the composition could also show outer packaging with the flask in front of it.

Figure 14: Examples of composition images (M1, M2, M3, M7, M8, M9)

2.2.4.7 Content/texture

The 'content/texture' image category shows images that depict the content or texture of a product. The image should be designed in such a way that the texture can be experienced by the end user similarly to in stationary retail, e.g. creme, lipstick.

Figure 15: Examples of images of content or a texture (T)

2.2.4.8 Detail/technology

The ‘detail/technology’ image category shows images that depict, for example, a close-up of special product characteristics, or images that describe the function or a special feature, such as the particular properties of a nappy.

Figure 16: Examples of detail images (F)

Figure 17: Examples of technology images (F)

2.2.4.9 Social media

The ‘social media’ image category shows assets with media content.

Figure 18: Examples of social media images (K)

2.2.4.10 Application

The ‘application’ image category is used to depict how the product itself is used.

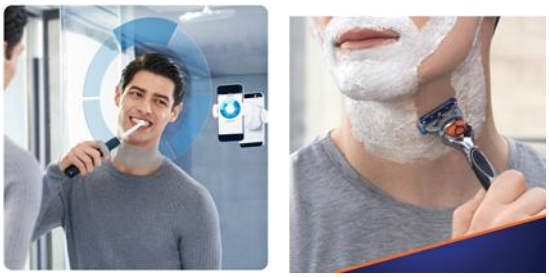


Figure 19: Examples to depict usage (N)

2.2.4.11 Ambience/mood

The ‘ambience/mood’ image category shows images used as ‘mood images’.

Figure 20: Examples to depict ambience (R)

2.2.4.12 Size comparison

The ‘size comparison’ image category makes clear the actual size of the product, e.g. via a schematic depiction of a person or well-known object (e.g. one-euro coin) in the background.

Figure 21: Examples to depict size (Q)

2.2.4.13 Sustainability

The sustainability image emphasizes the features or characteristics of the product related to recyclability, reusability, product and packaging components, environmental impact etc.

It differs from Sidekick Images due to its prime focus on the sustainability benefits of the product.

The use of an image classed as a Sustainability Image in no way implies any related Certification or Claim. This only indicates the image contains Sustainability related information.

If the sustainability claim appears on the product itself, then the image type for Certification Seals/Claims SHALL be used.

Figure 22: Example of a product with sustainability-related information (J)

2.2.4.14 Product image with elements (D)

In this image category, a product is shown against a white or transparent background and includes additional elements that are not part of the item for sale. The aim of this presentation is to visually highlight the product – not to create a staged 'beauty shot'.

The supplementary elements are intended to highlight the product and illustrate its use or effect. Examples of this are:

- A glass of wine and grapes next to a bottle of wine
- Fresh vegetables next to a bottle of sauce
    - A prepared and arranged version of the product in the same frame as the item itself

Figure 23: Example of a product display with elements (D)

2.2.4.14.1 Sidekick Images (S)

This image category serves to inform customers about the advantages of a product or provide a brief product history. It is a supplementary image or graphic that is typically used to support the primary image.

These images can be designed as a single image or as a series of several images and are intended to specifically support the purchase decision in online retail.

Figure 24: Example illustrating the advantages of a product (S)

2.2.5 360° turn of the consumer unit (2D turns)

The 360° turn of the consumer unit is described in the following chapters. A detailed description of the data exchange via GDSN is provided in *Chapter 2.4 Transferring product images and media assets via GDSN* and *2.5 Metadata.*

2.2.5.1 Depiction

Depending on the product, the following alternatives are possible:

- 2D turn comprising at least 24 individual images (max. 99 individual images), frontal perspective on one axis (horizontal)
  (for products with limited depth, e.g. pouch products, CDs/DVDs, etc.)
- 2D turn consisting of at least 24 individual images (max. 99 individual images), perspective from slightly above on one axis (horizontal)

There are two options for creating a 360° turn:
Option 1: The camera moves clockwise around the static product.
Option 2: The camera is fixed. The product stands on a turntable moving anticlockwise.

The starting image is the frontal view (image number 01 / arc position 1). The order of images can be described using the following figures:

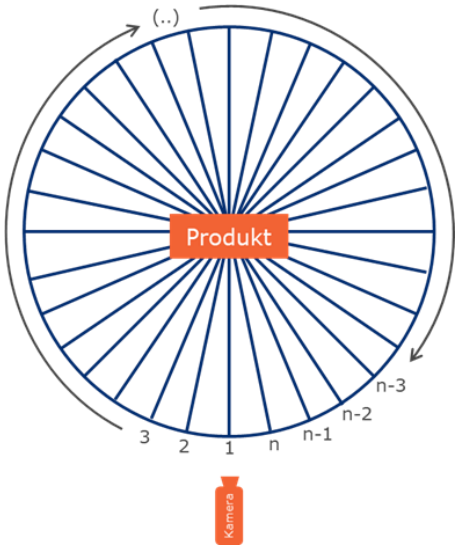


Image number	Arc position
01	1
02	2
03	3
(..)	(..)
n-2	n-2
n-1	n-1
n	n

Figure 25: Arc position of a 360° image with n individual images

The following figures depict the arc positions of a 360° image with 24 individual images:

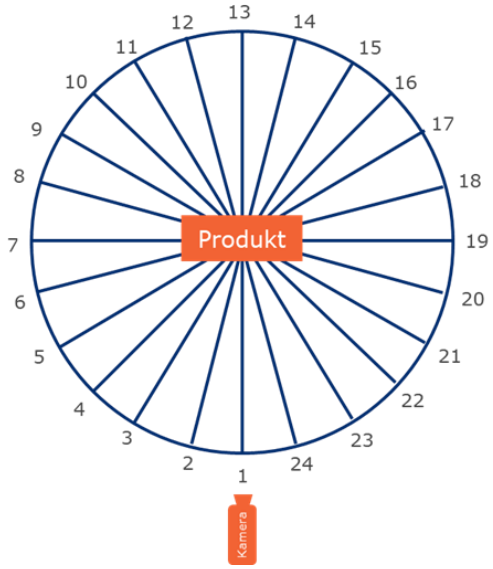


Image number	Arc position	Image number	Arc position	Image number	Arc position
01	1	09	9	17	17
02	2	10	10	18	18
03	3	11	11	19	19
04	4	12	12	20	20
05	5	13	13	21	21
06	6	14	14	22	22
07	7	15	15	23	23
08	8	16	16	24	24

Figure 26: Arc position of a 360° image with 24 individual images

Figure 27: 2D turn comprising 24 individual images (E1_R00_C01-24)

2.2.5.2 File format

JPEG file format is recommended.

2.2.5.3 Image size

- The minimum requirement for the image size of the individual images is A4 1136 × 640 pixels (retina display) (326 pixels per inch) and
- 2880 × 1800 pixels (retina display) (220 pixels per inch) is recommended as the maximum displayable size.

2.2.5.4 Colour space

sRGB colour space

2.2.6 Packaging information

For the consumer, it may be necessary to provide packaging information that they would normally get from the physical product.

Additional images of all the artwork, the ingredients list, the nutritional information and the instructions for preparing the product are therefore recommended.

The image of the **artwork** shows the final print layout of product packaging, including all the information that appears on the product.

Figure 28: Image of the artwork (L1)

The **label** image type is a product image developed from the artwork, without print-specific information such as colour spectrum or fold lines, including all the information that appears on the product.

Figure 29: Image of the product label (L1)

As can be seen in the previous example, it is not strictly necessary to show all sides of the product packaging. In the example, the upper, lower and front view are not shown.

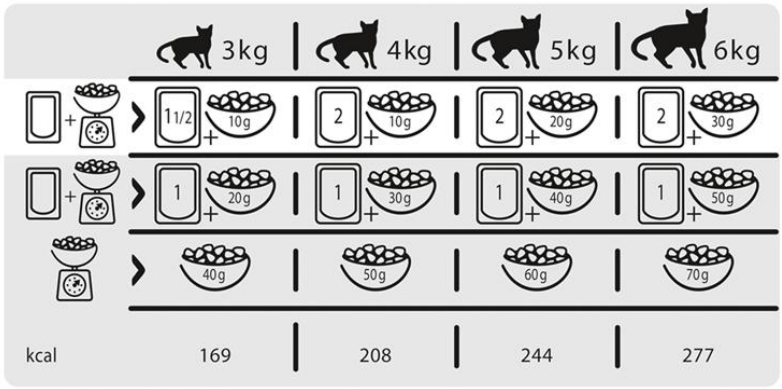
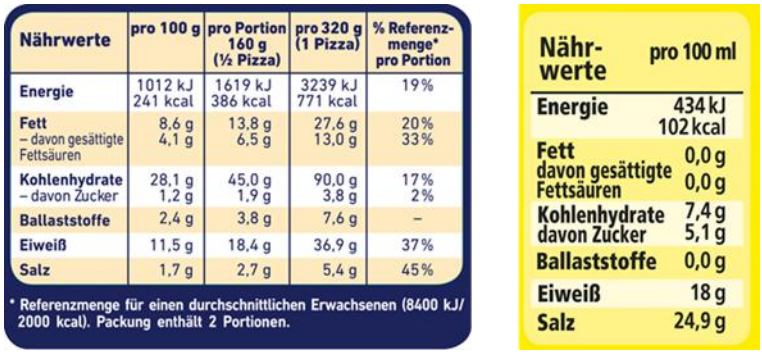


Figure 30: Image of a pet food feeding recommendation (L9)

The **nutritional information** provides details of the nutritional composition of a product. This image type only applies for consumable food products.



Nährwerte	pro 100 g	pro Portion 160 g (½ Pizza)	pro 320 g (1 Pizza)	% Referenz-menge* pro Portion
Energie	1012 kJ 241 kcal	1619 kJ 386 kcal	3239 kJ 771 kcal	19%
Fett – davon gesättigte Fettsäuren	8,6 g 4,1 g	13,8 g 6,5 g	27,6 g 13,0 g	20% 33%
Kohlenhydrate – davon Zucker	28,1 g 1,2 g	45,0 g 1,9 g	90,0 g 3,8 g	17% 2%
Ballaststoffe	2,4 g	3,8 g	7,6 g	–
Eiweiß	11,5 g	18,4 g	36,9 g	37%
Salz	1,7 g	2,7 g	5,4 g	45%

* Referenzmenge für einen durchschnittlichen Erwachsenen (8400 kJ/ 2000 kcal). Packung enthält 2 Portionen.

Nähr-werte	pro 100 ml
Energie	434 kJ 102 kcal
Fett davon gesättigte Fettsäuren	0,0 g 0,0 g
Kohlenhydrate davon Zucker	7,4 g 5,1 g
Ballaststoffe	0,0 g
Eiweiß	18 g
Salz	24,9 g

Figure 31: Image of the nutritional information (L2)

The image of the **ingredients index** is the list of all the ingredients printed on the packaging.

Figure 32: Image of the ingredients index (L4)

Figure 33: Image of the instruction for preparation (L8)

Figure 34: Image of seals (L7)

The **seals** depicted may be those created by the manufacturer itself or those created and evaluated by third parties.

Figure 35: Illustration of safety instructions (L10)

The image of **safety instructions** shows the safe use of the specific product.

Figure 36: Illustration of the medication data sheet (L11)

The image of the **medication data sheet** shows information such as active ingredients, areas of application, warnings, purpose and instructions for use.

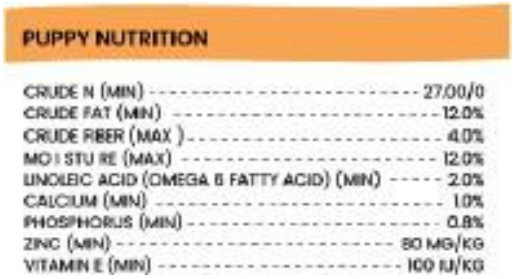


Figure 37: Illustration of the dietary supplement label (L12)

The image of the dietary supplement label is the list of all **dietary supplements** printed on the packaging.

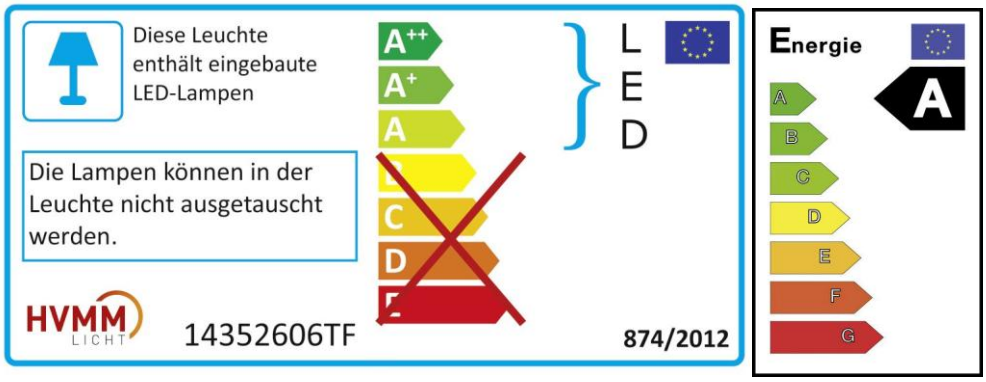


Figure 38: Illustration of the light bulb label (L13)

The image of the **light bulb** label shows product-specific technical characteristics.

2.2.7 Special cases

Pharmaceuticals/over-the-counter pharmaceuticals, nutritional supplements and medical products

Legal aspects must be considered in the depiction of pharmaceuticals/over-the-counter pharmaceuticals, nutritional supplements and medical products.

Original images of pharmaceuticals/over-the-counter pharmaceuticals including the depicted indication may only be used for end-user communication if the corresponding legal text is also shown. If this legal text is not additionally shown, the retouched image (indication) **MUST** be used.

When providing product images of pharmaceuticals, always showing a retouched version is recommended. The customer relies on being able to use the images as they are provided.

Figure 39: Pharmaceuticals with original image (the legal text must also be depicted)

Figure 40: Pharmaceuticals with retouched image (without legal text)

For nutritional supplements and medical products, the original images can always be used for end-user communication. There are no special points to consider.

Figure 41: Medical product

2.3 File name construction

With the help of the file name, media assets such as product images can be clearly identified and the allocation to a product can be more easily recognised. The file name is generated by the data inputter using the GTIN of the product. Additional information such as the image category, variant and version is included in the file name. This ensures that the numerous different product images can be differentiated precisely and mix-ups are avoided.

The global GS1 Product Image Specification Standard provides the basis for the naming of product images. It is available via *https://www.gs1.org/standards/gs1-product-image-specification-standard/current-standard*

These recommendations for use make use of the elements of the global GS1 Product Image Specification Standard for the naming of product images listed below. Please note that the length of the file name can vary depending on the type of product image.

Mapping of the previously used national naming structures to the now-applicable global naming convention can be found for all relevant product image types in the appendix of these recommendations for use.

For clarification of the individual elements of the naming structure, application for the relevant primary images for the German target market are described:

GTIN

The first 14 spaces of the file name are reserved for the GTIN of the product. For GTIN-13, the first space is to be filled with a zero. The GTIN-8 is depicted in spaces N7 to N14. The leading spaces N1 to N6 are to be filled with zeroes.

Delimiter

The space X15 represents the delimiter '_'.

Image category

Spaces X16–X19 describe in coded form the product image type, the side view and the perspective, among other things.

Delimiter

The space X20 represents the delimiter '_'.

Version (consecutive numbering for relaunch or replacement within an image category)

The consecutive numbering for replacement or relaunch (spaces X21 to X23) ensures there is no ambiguity if there is an update to an existing product image or a product image for a relaunch with the same GTIN. Starting with the value s01 is recommended.

Version information is mandatory for all product image types.

Delimiter

The space X24 represents the delimiter '_'.

Variant (consecutive numbering within an image category)

The numbering of an image category (spaces X25 to X27) ensures there is no ambiguity within a category. This is the case, for example, when a manufacturer provides several secondary images from the 'application' category. Starting with the value v01 is recommended.

For example, images in portrait and/or landscape format, with or without a promotion, etc., could be allocated to a category.

The specification of the variant is optional, as in practice it is only required for a few products or special cases. If there are product image variants within an image category and a version, then the variants must be specified in the image name.

Note: The introduction of the variant with 'v' differs from the global image naming convention 'CPV'. It represents only a product image variant and not a full CPV (consumer product variant). Due to a lack of sufficient use cases, the CPV is not yet an established part of the German GDSN target market profile FMCG.

Suppliers serving multiple GDSN target markets at the same time can avoid possible warnings from other countries expecting 'CPV' instead of 'v' by omitting the variant specification.

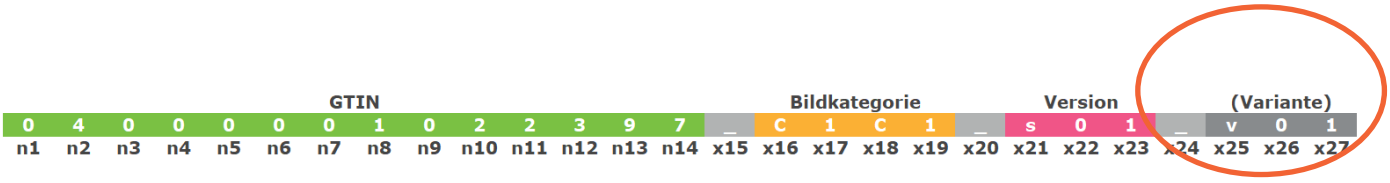


Figure 42: GTIN-based construction of file names

Note: The format ending (e.g. .jpeg/.jpg) and the SEO product description (*see Chapter 2.3.2)* are not part of the file name. The file name should be transferred to the attribute fileName [M416]. Accordingly, neither the format (e.g. .jpeg/.jpg) nor the SEO description can be included in the attribute fileName [M416].

Note: Using the same capitalisation as in the examples is recommended, as this makes reading the file name easier for people.

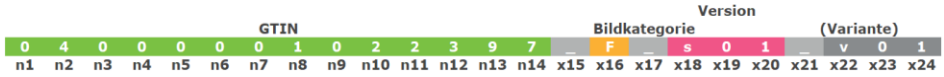
	Classification of product images	Description of image category (within the classification)	GTIN	Delimiter	Image category	Delimiter	Version	Delimiter	Variant	Mapping of image category to the code value of referencedFileTypeCode [M379]
			n14	_		_	s01-s99	_	v01-v99	
A	Product images for consumer units (each, within the packaging)	**Front view with perspective/top view***			**C1C1**					
		Front view with perspective/top view (opened)			C1CM					
		Left view (oblique from the left) with perspective			C1L1					
		Right view (oblique from the right) with perspective			C1R1					
		Frontal view without perspective			C1N1					
		Frontal back view without perspective			C7N1					
		Frontal back view with perspective			C7C1					PRODUCT_IMAGE
		Frontal view of the right side without perspective			C8N1					
		Frontal view of the right side with perspective			C8C1					
		Frontal view of the left side without perspective			C2N1					
		Frontal view of the left side with perspective			C2C1					
		Bottom view			C9N1					
		View of the top			C3N1					
B	Product images for trade units (box)	**Front view with perspective/overview***			**C1CA**					
		Front view with perspective/overview (opened)			C1CM					
		Left view (oblique from the left) with perspective			C1LA					
		Left view (oblique from the left) with perspective (opened)			C1LM					
		Right view (oblique from the right) with perspective			C1RA					
		Right view (oblique from the right) with perspective (opened)			C1RM					
		Frontal view without perspective			C1NA					
		Frontal view without perspective (opened)			C1NM					
		Frontal back view without perspective			C7NA					
		Frontal back view with perspective			C7CA					
		Frontal view of the right side without perspective			C8NA					PRODUCT_IMAGE
		Frontal view of the right side without perspective (opened)			C8NM					
		Frontal view of the right side with perspective			C8CA					
		Frontal view of the right side with perspective (opened)			C8CM					
		Frontal view of the left side without perspective			C2NA					
		Frontal view of the left side without perspective (opened)			C2NM					
		Frontal view of the left side with perspective			C2CA					
		Frontal view of the left side with perspective (opened)			C2CM					
		Bottom view			C9NA					
		View of the top			C3NA					
		View of the top (opened)			C3NM					
B	Product images for trade units (display/pallet)	**Front view with perspective/overview***			**C1CP**					
		Left view (oblique from the left) with perspective			C1LP					
		Right view (oblique from the right) with perspective			C1RP					
		Frontal view without perspective			C1NP					
		Frontal back view without perspective			C7NP					
		Frontal back view with perspective			C7CP					PRODUCT_IMAGE
		Frontal view of the right side without perspective			C8NP					
		Frontal view of the right side with perspective			C8CP					
		Frontal view of the left side without perspective			C2NP					
		Frontal view of the left side with perspective			C2CP					
		Bottom view			C9NP					
		Top view			C3NP					
C	Simplified/mobile-ready hero image (unit)	Front view with perspective/top view			H1C1					
		Left view (oblique from the left) with perspective			H1L1					MOBILE_READY_HERO_IMAGE
		Right view (oblique from the right) with perspective			H1R1					
		Front view without perspective*			**H1N1**					
D	Secondary image types	Detail/technology			F					ZOOM_VIEW
		Social media			K					SOCIAL_MEDIA_IMAGE
		Composition/montage - 1 - front			M1					MONTAGE_IMAGE
		Composition/montage - 2 - left			M2					MONTAGE_IMAGE
		Composition/montage - 3 - top			M3					MONTAGE_IMAGE
		Composition/montage - 7 - back			M7					MONTAGE_IMAGE
		Composition/montage - 8 - right			M8					MONTAGE_IMAGE
		Composition/montage - 9 - bottom			M9					MONTAGE_IMAGE
		Application			N					APPLICATION_IMAGE
		Size comparison			Q					SIZE COMPARISON
		Ambience/mood			R					AMBIENCE_MOOD_IMAGE
		Content/texture			T					CONTENT_TEXTURE_IMAGE
		Sustainability			J					SUSTAINABILITY_IMAGE (WR pending
		Product images with elements			D					IMAGE_WITH_ELEMENTS (WR pending
		Sidekick Images			S					SIDEKICK_IMAGE
E	Image of packaging information	Artwork			L1					PACKAGING_ARTWORK
		Label			L1					PRODUCT_LABEL_IMAGE
		Nutritional information			L2					NUTRITION_FACT_LABEL
		Ingredients list			L4					INGREDIENTS_LABEL
		Seal			L7					CERTIFICATION
		Preparation instructions			L8					PREPARATION_INSTRUCTIONS
		Petfood feeding instructions			L9					PETFOOD_FEEDING_INSTRUCTIONS
		Consumer handling and storage			L10					CONSUMER_HANDLING_AND_STORAG
		Drug fact label			L11					DRUG_FACT_LABEL
		Supplement fact label			L12					SUPPLEMENT_FACT_LABEL
		Lighting fact label			L13					SUPPLEMENT_FACT_LABEL
W	360° turn of the consumer unit	2D frontal view with rotation around the vertical axis			E1_R00_C01-24					360_DEGREE_IMAGE
Y	360° turn of the consumer unit	2D perspective view with rotation around the vertical axis			E1_R15_C01-24					360_DEGREE_IMAGE

Figure 43: Type of product image (* Preferred depiction of the corresponding image category)

As shown in the following examples, the length of the image name can vary due to the differing lengths of the image categories:

File name for image category: Front view with perspective / top view

File name for image category: Detail/technology



File name for image category: 2D frontal view with rotation around the vertical axis

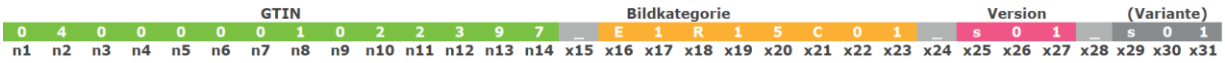


Figure 2 – 35: Depiction of variable length of image name

2.3.1 Application examples: Structure of the file name based on three cases

2.3.1.1 Case 1: Permanent standard product and a parallel promotion with time limitation

Produktbeispiel	Bildname							Gültig ab	Gültig bis	Inhalts-beschreibung
	GTIN	Trenner	Bildkategorie	Trenner	Version (fortlaufende Nummerierung bei Relaunch oder Korrektur einer Produktabbildung innerhalb einer Bildkategorie)	Trenner	Variante (fortlaufende Nummerierung innerhalb einer Bildkategorie)			
	N1-N14	X15	X16-X19	X20	X21-X23	X24	X25-X27			
	05900951264672	_	C1N1	_	s01	_	v01	01.01.2020	<leer>	<leer>
	05900951264672	_	C1N1	_	s01	_	**v02**	**04.05.2020**	**19.09.2020**	**On-Pack Fußball Promotion**

Figure 2 – 36: Application example case 1

* The 'fileEffectiveEndDateTime' date should be provided when publishing the promotional product image.

2.3.1.2 Case 2: Temporary promotion with different layouts without standard product

Produktbeispiel	Bildname							Gültig ab	Gültig bis	Inhalts-beschreibung
	GTIN	Trenner	Bildkategorie	Trenner	Version (fortlaufende Nummerierung bei Relaunch oder Korrektur einer Produktabbildung innerhalb einer Bildkategorie)	Trenner	Variante (fortlaufende Nummerierung innerhalb einer Bildkategorie)			
	N1-N14	X15	X16-X19	X20	X21-X23	X24	X25-X27			
	05000159452540	_	C1N1	_	s01	_	**v01**	06.04.2020	01.08.2020	On-Pack Fußball Promotion - **Abseits**
	05000159452540	_	C1N1	_	s01	_	**v02**	06.04.2020	01.08.2020	On-Pack Fußball Promotion - **Bekloppt**
	05000159452540	_	C1N1	_	s01	_	**v03**	06.04.2020	01.08.2020	On-Pack Fußball Promotion - **Abstauber**

Figure 2 – 37: Application example case 2

* The 'fileEffectiveEndDateTime' date should be provided when publishing the promotional product image.

2.3.1.3 Case 3: Permanent standard version with two image variants in different formats (portrait and landscape) and in chronological sequence of a new image version after changing the product design

Produktbeispiel	Bildname							Gültig ab	Gültig bis	Inhalts-beschreibung
	GTIN	Trenner	Bildkategorie	Trenner	Version (fortlaufende Nummerierung bei Relaunch oder Korrektur einer Produktabbildung innerhalb einer Bildkategorie)	Trenner	Variante (fortlaufende Nummerierung innerhalb einer Bildkategorie)			
	N1-N14	X15	X16-X19	X20	X21-X23	X24	X25-X27			
	04008429010989	_	C1R1	_	s01	_	v01	01.02.2019	**31.01.2020**	<leer>
	04008429010989	_	C1R1	_	s01	_	v02	01.02.2019	**31.01.2020**	<leer>
	04008429010989	_	C1R1	_	**s02**	_	v01	**01.02.2020**	<leer>	<leer>
	04008429010989	_	C1R1	_	**s02**	_	v02	**01.02.2020**	<leer>	<leer>

Figure 2 – 38: Application example case 3

* A new product image (e.g. relaunch) replaces the previous standard version. At the same time, when the new version is published, the 'fileEffectiveEndDateTime' date must be specified for the previous version.

2.4 Transferring product images and media assets via GDSN

No image files are transferred directly via GDSN standard. A URL is only transferred in the master data notification (CIN – Catalogue Item Notification) that references an image or group of images (360° turn).

The URL must refer directly to an individual image file (complete path including the file name).
Example:
*http://www.markenhersteller_A/bilder/hashwert/**04000001022397_C1C1_s01**_v01**.jpg***

Directory path

In a directory path, the path to a directory is specified, where, for example, a group of images (e.g. for the 360° turn) is stored.
Example: *http://www.markenhersteller_A/bilder/hashwert/**04000001022397_C1C1_s01**_v01/*

The URL itself is not subject to naming conventions. This is built according to the predefined structure of each company. Only the naming conventions of the file name of the image must be observed.

Accessing product images and media assets via the URL

Access to the images described in this recommendation for use should generally be designed as simply as possible for the data recipient or retailer.

The following requirements should be kept in mind:

- It should be possible to download the image file by accessing the URL.
- The URL should not require any registration or login. That means that, where possible, access via username and password or exchanging certificates should not be used if this is permitted by the applicable company-internal IT security rules. To remain compliant with in-house IT security policies of the suppliers of media assets and to prevent arbitrary downloads or crawling of media assets at the same time, the integration of a 128-bit hash value within the URL is recommended. This further reduces potential hurdles (username/password or exchange of certificates) and ensures fast and efficient access to media assets.
- For new images it is necessary to generate new URLs and communicate them via GDSN.

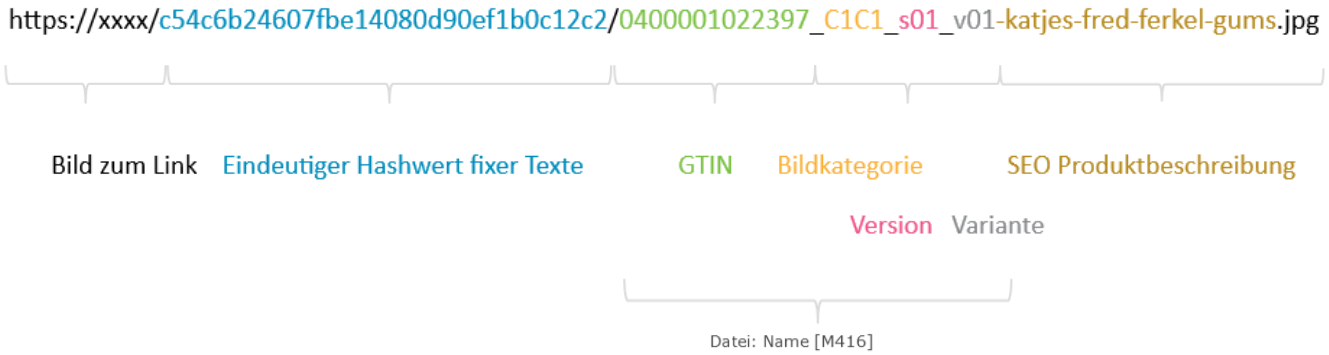


Figure 2 – 39: Example construction of a directory path

Note: The recommended file format for product images is JPEG. Do not use compressed formats, e.g. with ZIP, 7ZIP, WINZIP, etc., as this can prevent automatic further processing. The file ending (e.g. .jpg / .jpeg) must be provided for image links. Files without ending will not be processed.

Adding an SEO product description to the file name

It is possible to add an SEO (search-engine-optimised) product description to the file name in the URL. The SEO product description should consist of the modules brand, sub-brand and a product description in a web-compliant form.
Web-compliant means that a minus is used as word separator, no special characters or spaces are used, and ideally the text is written in lower case.

Module	Text
Brand	Katjes
Sub-brand	Fred Ferkel
Product description	Fruit gums
Web-compliant SEO product description	katjes-fred-ferkel-fruchtgummis

Figure 2 – 40: Example construction of an SEO product name

2.5 Metadata

The metadata defined below refers to additional information relating to the image or media asset. This metadata can be transmitted in two different ways. On the one hand, it can be directly connected to the image (embedded in the image file) (*see Chapter 2.5.1*). On the other hand, this metadata can be transmitted independently of the image via GDSN (*see Chapter 2.5.2*). A link for the information in GDSN takes place via the respective GTIN and the URL of the image.

Alternative texts (Alt-Text)

Provide suitable text alternatives for all non-textual content (e.g. product images) so that it can be converted into other formats such as large print, Braille, spoken language, symbols or easy-to-understand language if required.

Valid from date (DDMMYYYY)

Earliest date from when the image can be used or may be shown. Always maintaining the 'Valid from date' is recommended. If no future validity has been defined, the current date should be used.

Expiration date (DDMMYYYY)

For standard products with unlimited validity, no 'Expiration date' should be entered.

Terms of use

Ideally, unrestricted usage rights should be granted for the images. In this case, nothing needs to be entered. However, if it is necessary to transfer special terms of use (e.g. pharmaceuticals, tobacco or promotional articles), these can be defined using the following examples:

- Cannot be used in print
- Cannot be used globally
- May only be used for the online sector

Special conditions should be defined as free text.

Copyright

Ideally, there should be no copyright on the images. Therefore, if there are no restrictions, it is not used.

Creation date of the product image

If the creation date is not known, this is left blank.

Author/creator

If the author is not known, this is left blank.

Content description

Informal description of the content of the referenced file. Providing additional information on the 360° turn and/or the product variant here is recommended.

For a 360° turn, the number of images should be specified (at least 24).

For example: 24

For the product variant, what type of article variant is involved should be specified.

The example in Fig. 2 – 41 shows different packaging designs, each with identical net weight, identical customer information and the same GTIN. The product images of these different variants can be clearly identified via the meta-information contentDescription [M422]).

Figure 2 – 41: Examples for product images

The tagging is not part of this specification and the responsibility is up to the user of the product image.

Example: bow, rose, hearts

If necessary, information on the 360° turn and the article variant can be entered.

Example: 24; bow

Seasonal products

In line with GTIN allocation rules, a seasonal product is depicted via a new GTIN. For this purpose, a new article with product information and product images is created via GDSN.

2.5.1 Transfer of metadata in the image

Image editing programs use different formats and releases to store metadata in an image file. One frequently used standard is the International Press Telecommunications Council (IPTC).

In the following table, the meta information displayed in *Chapter 2.5* is mapped to the current IPTC Standard, insofar as it is available. Providing the metadata in the image is optional.

Metadata	IPTC attribute
Terms of use	IPTC: rights usage terms
Copyright	IPTC: copyright notice
Author/Creator	IPTC: copyright owner

Figure 2 – 42: Mapping metadata – IPTC attributes

2.5.2 Transfer of metadata information through GDSN

Another possibility for technical communication of metadata between suppliers and retailers is the use of the standardised 'Global Data Synchronisation Network' (GDSN).

The Global Data Synchronisation Network (GDSN) is a worldwide network of master data pools via which product master data can be exchanged between manufacturers and retailers globally. In this context, the data must only be provided in a single data pool. The GDSN connects around 30 certified data pools worldwide, to which more than 25,000 companies are currently connected. GDSN data pools all use the same standards – for example, they use the GTIN for item identification. To enable the global exchange of data across multiple data pools, GDSN accesses a central register (global registry). This makes it possible to locate item data and company data

worldwide in data pools. For additional information on the GDSN, please visit: http://www.gs1.org/gsmp/kc/gdsn.

For each piece of meta-information, the following table shows the corresponding GDSN attribute in the German target market profile FMCG DIY, in which the information can be transferred:

Metadata	GDSN attribute
File type	referencedFileTypeCode [M379] Mapping image category/code values see table in the appendix Status: dependent mandatory (code value product image)
URL of the product image	uniformResourceIdentifier [M378] Status: dependent mandatory
File name	fileName [M416] Status: dependent optional
Valid from date (DDMMYYYY)	fileEffectiveStartDateTime [M417] Status: dependent optional If this attribute is not filled in by the supplier, the image is immediately valid and can be used.
Expiration date (DDMMYYYY)	fileEffectiveEndDateTime [M418] Status: dependent optional For promotional merchandise, this attribute must be filled in. For standard products with unlimited validity, no 'fileEffectiveEndDateTime' date should be entered.
Terms of use	fileUsageRestriction [M419] Status: dependent optional
Copyright	fileCopyrightDescription [M420] Status: dependent optional
Author/creator	fileAuthorName [M421] Status: dependent optional
Content description	contentDescription [M422] Status: dependent optional
GTIN	gtin [M017] Status: mandatory
Format	fileFormatName [M423] Status: dependent optional
Colour scheme	fileColourSchemeCode [M426] Status: dependent optional

Figure 2 – 43: Mapping metadata – GDSN attributes

Appendix

Mapping of image categories national (old)/global (new) naming and allocation image categories to code value of the GDSN attribute referencedFileTypeCode [M379]

	Classification of product images	Description of image category (within the classification)	GTIN	Delimiter	Image category old	Image category	Delimiter	Version	Delimiter	Variant	Mapping of image category to the code value of referencedFileTypeCode [M379]		Example image
			n14	_			_	s01-s99	_	v01-v99			
A	**Consumer unit product image (each, in packaging)**	**Front view with perspective / top view***			A001	**C1C1**					PRODUCT_IMAGE		
		Left view (oblique from the left) with perspective			A002	C1L1							
		Right view (oblique from the right) with perspective			A003	C1R1							
		Frontal view without perspective			A004	C1N1							
		Frontal back view without perspective			A005	C7N1							
		Frontal back view with perspective			A005	C7C1							

	Classification of product images	Description of image category (within the classification)	GTIN	Delimiter	Image category old	Image category	Delimiter	Version	Delimiter	Variant	Mapping of image category to the code value of referencedFileTypeCode [M379]		Example image
			n14	_			_	s01-s99	_	v01-v99			
A	**Consumer unit product image (each, in packaging)**	Frontal view of the right side without perspective			A006	C8N1					PRODUCT_IMAGE		
		Frontal view of the right side with perspective			A006	C8C1							
		Frontal view of the left side without perspective			A007	C2N1							
		Frontal view of the left side with perspective			A007	C2C1							
		Bottom view			A008	C9N1							
		Top view			A009	C3N1							
B	**Trade unit product image (box)**	**Front view with perspective / top view* ****			B001	**C1CA**					PRODUCT_IMAGE		

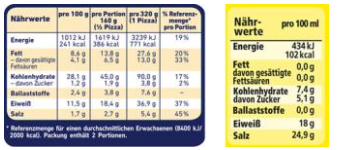
	Classification of product images	Description of image category (within the classification)	GTIN	Delimiter	Image category old	Image category	Delimiter	Version	Delimiter	Variant	Mapping of image category to the code value of referencedFileTypeCode [M379]		Example image
			n14	_			_	s01-s99	_	v01-v99			
B	**Trade unit product image (box)**	Front view with perspective / top view (opened)			B001	C1CM					PRODUCT_IMAGE		
		Left view (oblique from the left) with perspective			B002	C1LA							
		Left view (oblique from the left) with perspective (opened)			B002	C1LM							
		Right view (oblique from the right) with perspective			B003	C1RA							
		Right view (oblique from the right) with perspective (opened)			B003	C1RM							
		Frontal view without perspective			B004	C1NA							
		Frontal view without perspective (opened)			B004	C1NM							
		Frontal back view without perspective**			B005	C7NA							
		Frontal back view with perspective**			B005	C7CA							

	Classification of product images	Description of image category (within the classification)	GTIN	Delimiter	Image category old	Image category	Delimiter	Version	Delimiter	Variant	Mapping of image category to the code value of referencedFileTypeCode [M379]		Example image
			n14	_			_	s01-s99	_	v01-v99			
B	**Trade unit product image (box)**	Frontal view of the right side without perspective**			B006	C8NA					PRODUCT_IMAGE		
		Frontal view of the right side without perspective (opened)			B006	C8NM							
		Frontal view of the right side with perspective**			B006	C8CA							
		Frontal view of the right side with perspective (opened)**			B006	C8CM							
		Frontal view of the left side without perspective**			B007	C2NA							
		Frontal view of the left side without perspective (opened)**			B007	C2NM							
		Frontal view of the left side with perspective**			B007	C2CA							
		Frontal view of the left side with perspective (opened)			B007	C2CM							
		Bottom view**			B008	C9NA							
		Top view**			B009	C3NA							
		Top view (opened)**			B009	C3NM							
B	**Trade unit product image (display/pallet)**	**Front view with perspective / top view***			**B001**	**C1CP**					PRODUCT_IMAGE		

	Classification of product images	Description of image category (within the classification)	GTIN	Delimiter	Image category old	Image category	Delimiter	Version	Delimiter	Variant	Mapping of image category to the code value of referencedFileTypeCode [M379]		Example image
			n14	_			_	s01-s99	_	v01-v99			
		Left view (oblique from the left) with perspective			B002	C1LP							
		Right view (oblique from the right) with perspective			B003	C1RP							
		Frontal view without perspective			B004	C1NP							
		Frontal back view without perspective**			B005	C7NP							
		Frontal back view with perspective**			B005	C7CP							
		Frontal view of the right side without perspective**			B006	C8NP							
		Frontal view of the right side with perspective**			B006	C8CP							
		Frontal view of the left side without perspective**			B007	C2NP							
		Frontal view of the left side with perspective**			B007	C2CP							
		Bottom view**			B008	C9NP							
		Top view**			B009	C3NP							
C	**Mobile-ready hero image (consumer unit)**	Front view with perspective / top view			C001	H1C1					MOBILE_READY_HERO_IMAGE		

	Classification of product images	Description of image category (within the classification)	GTIN	Delimiter	Image category old	Image category	Delimiter	Version	Delimiter	Variant	Mapping of image category to the code value of referencedFileTypeCode [M379]		Example image
			n14	_			_	s01-s99	_	v01-v99			
		Left view (oblique from the left) with perspective**			C002	H1L1							
		Right view (oblique from the right) with perspective**			C003	H1R1							
		Frontal view without perspective*			C004	**H1N1**							
C	**Optimised hero image**	Front view with perspective / top view			C001	U1C1					OPTIMISED_ HERO_IMAGE		
		Left view (oblique from the left) with perspective**			C002	U1L1							
		Right view (oblique from the right) with perspective**			C003	U1R1							
		Frontal view without perspective*			C004	**U1N1**							
D	**Secondary image types**	Detail/technology			D012/D16	F					ZOOM_VIEW		

	Classification of product images	Description of image category (within the classification)	GTIN	Delimiter	Image category old	Image category	Delimiter	Version	Delimiter	Variant	Mapping of image category to the code value of referencedFileTypeCode [M379]		Example image
			n14	_			_	s01-s99	_	v01-v99			
		Social media			D013	K					SOCIAL_MEDIA_IMAGE		
		Composition/montage - 1 - front			D010	M1					MONTAGE_IMAGE		
		Composition/montage - 2 - left**			D010	M2					MONTAGE_IMAGE		
		Composition/montage - 3 - top**			D010	M3					MONTAGE_IMAGE		
		Composition/montage - 7 - back**			D010	M7					MONTAGE_IMAGE		
		Composition/montage - 8 - right**			D010	M8					MONTAGE_IMAGE		
		Composition/montage - 9 - bottom**			D010	M9					MONTAGE_IMAGE		
		Application			D014	N					APPLICATION_IMAGE		
		Size comparison			D017	Q					PRODUCT_IMAGE		
D	**Secondary image types**	Ambience/mood			D015	R					AMBIENCE_MOOD_IMAGE		

	Classification of product images	Description of image category (within the classification)	GTIN	Delimiter	Image category old	Image category	Delimiter	Version	Delimiter	Variant	Mapping of image category to the code value of referencedFileTypeCode [M379]		Example image
			n14	_			_	s01-s99	_	v01-v99			
		Content/texture			D011	T					CONTENT_TEXTURE_IMAGE		
		Sustainability				J					SUSTAINABILITY_IMAGE		
I	**Image of packaging information**	Artwork			E013	L1					PACKAGING_ARTWORK		
		Label			E014	L1					PRODUCT_LABEL_IMAGE		
		Nutritional information			E011	L2					NUTRITION_FACT_LABEL		
		Ingredient statement			E010	L4					INGREDIENTS_LABEL		

	Classification of product images	Description of image category (within the classification)	GTIN	Delimiter	Image category old	Image category	Delimiter	Version	Delimiter	Variant	Mapping of image category to the code value of referencedFileTypeCode [M379]		Example image
			n14	_			_	s01-s99	_	v01-v99			
I	**Image of packaging information**	Seal			D018	L7					CERTIFICATION		
		Preparation instructions			E012	L8					PREPARATION_ INSTRUCTIONS		
		Pet food feeding recommendation			E012	L9					PETFOOD_FEEDING_ INSTRUCTIONS		
W	**360° turn of the consumer unit**	2D frontal view with rotation around the vertical axis			W001-WXXX	E1_R00_ C01-24					360_DEGREE_ IMAGE		
Y	**360° turn of the consumer unit**	2D perspective view with rotation around the vertical axis			Y001-YXXX	E1_R15_ C01-24					360_DEGREE_ IMAGE		

Placeholder for table
(* Preferred depiction in image category

** There is currently no example image for this image category)

Term	Definition
ECI RGB V2	Standardised RGB colour spaces from the ECI (European Color Initiative). It is recommended as a working colour space for professional image editing.
Global Trade Item Number (GTIN)	Globally valid numbering structure to uniquely identify products and services with max. 14 spaces (GTIN-8, GTIN-12, GTIN-13 and GTIN-14).
Global Location Number (GLN)	Globally valid numbering structure for unique identification of physical, functional or legal entities of companies and/or business units.
Trade unit	Each unit of a product or service for which passing on master data is required and for which at some point of the supply chain a price is communicated or can be ordered, offset or billed (max. 14 spaces: GTIN-13 or GTIN-14).
IPTC	The IPTC-IIM standard (often just IPTC for short) aids the saving of metadata in image files. The IPTC-IIM standard was developed by the International Press Telecommunications Council (IPTC) together with the Newspaper Association of America (NAA) and is fundamentally suitable for all types of media, i.e. texts, photos, graphics, audio or video.
Consumer unit/ end consumer unit	Each trade unit intended for sale to an end user at the retail POS. The units are identified by a GTIN-8, GTIN-12 or GTIN-13, which is encrypted in an omnidirectionally readable symbol for the purpose of very fast scanning.
Metadata	Metadata is structured data for a uniform description of e.g. data, documents, people, concepts.
Pixel	The smallest element in the rastered, digitised depiction of an image on a screen or by means of a printer.
Pixels per inch (ppi)	With pixels per inch, the dot density is specified. In image reproduction, this is a measure for the level of detail of a rastered, visual depiction, and thus one of the quality aspects of the technical reproduction method.
sRGB	Standard RGB (Red Green Blue) is an RGB colour space.

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