![ECR AUSTRIA EFFICIENT CONSUMER RESPONSE]

GUIDELINE
FOR PRODUCT IMAGES

AN ELABORATION OF ECR AUSTRIA TASK FORCE
"IMAGE- AND MEDIA-DATABASE"

Important: Guideline for product image will be updated. (Status: November 2022)

The document "Guideline for product images" is currently being revised based on the results from the ECR Austria service group master data from November 8, 2022.

Below you find the most important points regarding the defined minimum requirements for image material:

- File format in JPG format recommended (or TIF format).

- File size less than 20 MB

- Color depth min. 24 bit

- Color representation in sRGB / Adobe RGB / ECI RGB V2 color space

- Resolution min. 300 ppi

- Image size for the longest page 2,401 pixels as lower limit

- ONE single clipping path available

- Clipping path must be closed

- Number of clipping points <600 points

- Recommendation for structured file name structure, such as 04012345670004_C1C1.jpg

- Div. quality requirement for the image link (server response times, allow API accesses via HEAD request, etc.)

Note: Data supplier should use the new minimum requirements for the creation of the new images from now on. From February 2023 the modified minimum requirements will also be validated as part of the GS1 Sync master data exchange (target market Austria).

If you have any questions, please do not hesitate to contact us at gs1sync@gs1.at.

CONCEPT AND TEXT

Rene Schweinzger, Manfred Piller
Translated by Bernhard Mayrhofer
GS1 Austria GmbH, Brahmsplatz 3, 1040 Wien
This document is based on GS1 standards for the specification and exchange of product images.

CONTENT INPUT

Participants of ECR Austria task force „Image- & Media-Database"

COVER PHOTO

@ ECR Austria

Examples of Product Images:

The following companies kindly provided all examples of images:

Amazon EU S.à r.l.
Brandbank (Hungary) Kft.
GS1 Austria GmbH
Kelly Ges.m.b.H.
Markant Österreich GmbH

Metro Österreich GmbH
Nestlé Österreich GmbH
REWE International AG
Unilever Österreich GmbH
Unimarkt Handelsgesellschaft m.b.H. & Co KG

#. TABLE OF CONTENTS

1. INTRODUCTION

Every day, fast moving consumer goods are presented to the consumer in different media (leaflets, online shops) in a variety of different but often unfavorable ways. Most product shots are done very individually by manufacturers and retailers due to lack of standards and therefore lead to many different versions. Consumers do not want to buy a product that looks different in the original than what they have seen before in the brochure or online, neither do they want to not recognize the product on shelf due to strong colour corrections or misleading perspectives. In addition, unfavorable presentations, such as crumbled packs or fuzzy product images, influence the perceived quality as well.

This reality was the starting point for founding the ECR Austria task force "Image- & Media-Database" with the clear aim to establish concrete standards for product images within the entire consumer goods industry. Ultimately, ECR is all about creating processes and standards, which provide the customer with a better shopping experience in the end.

In numerous meetings and workshops many well-known representatives of the Austrian grocery trade and the respective manufaturers, involving professionals such as photographers, printing technicians and graphic artists, have created a common understanding of how everyday products should ideally be shot or displayed. This document is a recommendation for uniform creation and transmission of product images. It enables a timely collection and processing by the business partners. Above all, however, the consumer can be offered a better service with a relevant, informative and attractive presentation of the product.

2. AREAS OF APPLICATION

Product images are used by the business partners for the following areas:

• for presentation of the product in web shops, catalogues or in various offline- or online-marketing-channels (e.g. leaflet, newspaper advertisement, advertising banner etc.)

• for planograms (for filling, sorting or optimizing a shelf)

Note 1:
High quality and attractive product images can only be produced through professional photography and professional image editing (see Appendix A).

3. PRESENTATION OF A CONSUMER GOOD

In order to best present a fast moving consumer good and to ensure sufficient diversity for the business partners, each manufacturer is recommended to provide more than one product image of the consumer good. The following are the different variants for representing a consumer article:

FRONT FACE OF THE CONSUMER GOOD WITHOUT PERSPECTIVE (ID1)

FRONT FACE OF THE CONSUMER GOOD WITH PERSPECTIVE (ID2)

RIGHT FACE OF THE CONSUMER GOOD WITH PERSPECTIVE (ID3)

LEFT FACE OF THE CONSUMER GOOD WITH PERSPECTIVE (ID4)

3.

From the manufacturers point of view, there are products in which it makes sense to provide only one product image for a consumer good.

The manufacturer is responsible for choosing which product images are chosen.

Below is the recommended number of different product images for a consumer good:

OPTION A: MINIMUM

ONE (1) single product image of the consumer good

Variant for depiction:
Image ID1 or **image ID2** or **image ID3** or **image ID4**

OPTION B: STANDARD

TWO (2) different product images of the consumer good

Variant for depiction:
Image ID1 and
image ID2 or **image ID3** or **image ID4**

OPTION C: PREMIUM

FOUR (4) different product images of the consumer good

Variant for depiction:
Image ID1 and
image ID2 and
image ID3 and
image ID4

Note 2:

Illustrations of the front face must always be made from the same perspective and in the same style (e.g. light setup, plasticity, etc.) for different types/variants of a product in order to ensure a harmonious group image (see Appendix D).

4. HANDLING OF COMPUTER GENERATED IMAGES

Computer generated images are generally accepted.
However, these images must meet the same quality requirements as conventionally photographed and post-processed product images.

See Appendix C for an example of incorrect computer-generated images.

5. CLIPPING PATH

The product image from the front of the consumer product needs to be provided with only one exact clipping path.
It is recommended to refer to this as "Path 1".

For the rounding tolerance 1 pixel and a maximum of 10,000 clipping points are recommended.
It is also recommended to create the clipping path manually (with path tool/pen only) as an automatically generated clipping path does not have the necessary quality in practice.

MORE DETAILS FOR CREATING THE CLIPPING PATHS:

- Path has to be closed
- Path contour always within the to be cleared objects (to avoid imperfections)

Clipping path
optimal

Clipping path
inadequate
(created from selection)

Clipping path
inadequate
(inaccurate, past the product)

Product images without an exact clipping path will not be accepted by the business partners. Even product images that have several different clipping paths are not accepted by the business partners.

6. TECHNICAL REQUIREMENTS FOR AN IMAGE FILE

To meet the technical requirements, the following criteria must be considered:

CRITERIA	DESCRIPTION OF REQUIREMENT
File Format	TIFF Format[1] with LZW Compression (TIFF options: Packing software such as ZIP or WinRAR is not allowed, no image pyramid, pixel arrangement interleaved, byte order IBM PC, no layers) or JPG format with a compression factor of 12 in maximum quality
Colour mode	sRGB / Adobe RGB / ECI RGB V2 Colour space with 8 bits per channel (24-bit Colour depth)
Resolution	At least 300 ppi[2] (pixel per inch)
Image Size	For the longest side, the lower limit is 2000 pixels (at 300 ppi).
File Size	An image file may not be larger than 20 MB.

The following information must be visible in the metadata of an image file:

CRITERIA	METAFEATURE	REQUIREMENTS
File Format	Element Type Compression	.tif (or .jpg) LZW (applies to JPG files: Quality 12)
Colour mode	Bit Depth Colour Display	At least 24 sRGB (or eci RGB v2 or Adobe RGB)
Resolution	Horizontal Resolution Vertical Resolution	At least 300 ppi At least 300 ppi
Image Size	Dimensions (Width, Height)	At least 2000 Pixel for the longest side
File Size	Size	Max. 20 MB

[1] The file format is called TIFF (Tagged Image File Format) and has the file extension .tif
[2] ppi (pixels per inch) = dpi (dots per inch)

7. AESTHETIC REQUIREMENTS FOR AN IMAGE

In addition to the technical requirements, a picture must also meet a number of aesthetic requirements in order to provide high quality and attractive product images.

7.1. PRODUCT PACKAGING

It is important that a very conscientious selection of product samples is made. Care must be taken to ensure that the samples are clean and free from damage, that there are no kinks, cracks, damage, fingerprints, affixed labels or similar.

7.2. BACKGROUND

Generally, the products are presented on a neutral background. Props, aids, people or additional items may not appear on the product image.

In TIFF format, the products are displayed either on a transparent or white background. The white value is the hex value #FFFFFF (RGB: 255, 255, 255) (JPG format only allows a white background).

Note 3:
Please make sure that both the transparent and the white background always have a single exact clipping path in the image file.

7.3. REFLECTIONS & PLASTICITY

Reflections on the product packaging should be realistic in order to give the product packaging a corresponding plasticity.
Disturbing reflections through which, for example, texts on the product packaging can no longer be read, must be avoided.

7.4. SHADOWS & REFLECTIONS

The product should not have a shadow or reflection.

If shadows or reflections are visible in the image file despite the recommendation, the image file must necessarily have a clipping path.
For the clipping path, make sure that the shadow or reflection is not within the clipping path.

Furthermore, it must be ensured that the image size (at least 2000 pixels for the longest page) relates exclusively to the product image (without shadow or reflection).

7.5. RETOUCHING

Production-specific information, such as best-before date or batch number, is not permitted and must be retouched, regardless of whether this product-specific information is embossed, engraved or printed on the packaging. Retouching should be as seamless and undetectable as possible and be convincing at a minimum of 200% magnification. Article specific labels, e.g. Fairtrade, Bio Austria or UTZ are allowed.

7.6. SHARPNESS

Each image should be photographed with great depth of field so that the entire product and the entire text of the product packaging are sharp. Furthermore, it should be ensured that the image was not sharpened in digital image processing too much. Depth of field blur as a stylistic device must not be used. Pixel formation and distortion such as wide-angle shooting or moiré effect should be avoided.

7.7. COMPLETE PRODUCT IMAGE

When imaging the front side, the product must be completely visible.

7.8. LIGHT SETUP

The lighting of the product should be uniform and suitable when the image is taken to avoid colour casts, light zones or dark zones on the packaging. It is important that product edges are clearly displayed and do not blur, for example due to over-illumination with the background.

7.9. COLOUR

The colours of the product packaging should be as rich, vivid and true to the original as possible. All colours should look balanced and harmonious when viewed in the product. Colour casts are generally to be avoided.

7.10. WATERMARKS

There must be no watermarks in the product image.

8. NAMING AN IMAGE FILE

The file name should contain the article GTIN (EAN) of the product packaging shown to ensure a clear assignment.
An example of naming an image file might look like this:
09019100100603_ID1_NÖM_Butter_spreadable_125g_Cup.tif

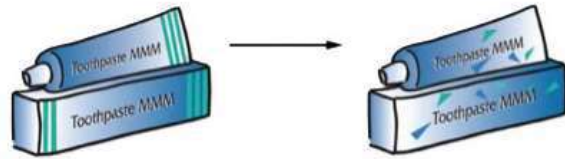## 9. RECOMMENDATION FOR THE CREATION OF A NEW IMAGE

9.1. CREATING A NEW IMAGE

Here are a few examples that recommend producing a new product image:
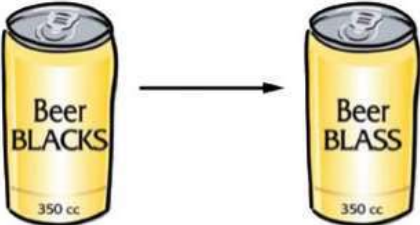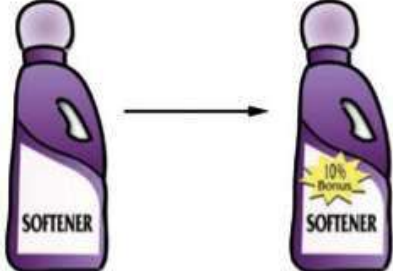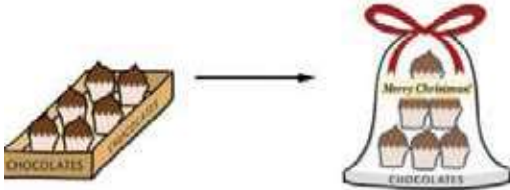
	EXAMPLES	VISUALIZATION OF EXAMPLES
1	Change of the graphic presentation of the product packaging	
2	Changes to the packaging material or packaging size	
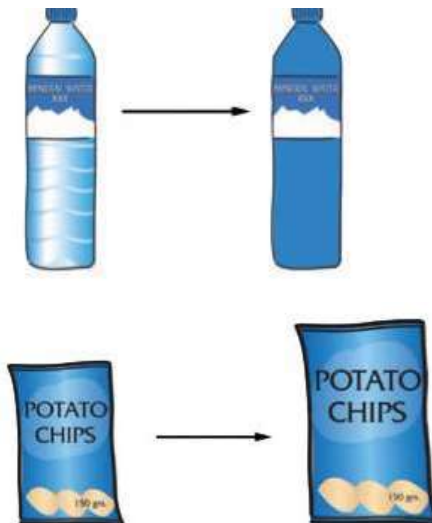
3	Different flavours (seasonal)	
4	Change of the brand name	
5	Special Editions (e.g. Anniversary packaging)	
6	Change of the product claim for the customer	
7	Special promotion filling (e.g. 20% more content)	
8	Special seasonal product packaging (Christmas, Easter)	

9.2. CREATION OF A NEW IMAGE TAKING INTO ACCOUNT CERTAIN CONDITIONS

Below are a number of examples where the production of a new product image is recommended under certain conditions. Please consider the corresponding comments:

EXAMPLES	VISUALIZATION OF EXAMPLES
1 (Minor) changes to legally relevant article information (e.g. nutritional values) **To consider:** If the changes to legally relevant article information are visible or readable, it is recommended to create a new image. Attention: When changing the GTIN (new GTIN triggered by the change of the recipe such as a new allergenic ingredient is added in the recipe), a new image must be provided.	
2 Consumer packaging contains a different mix of individual products (e.g. colour, flavour) without changing the consumer's claim **To consider:** If the content is packed randomly, it is recommended that you do not create a new image.	
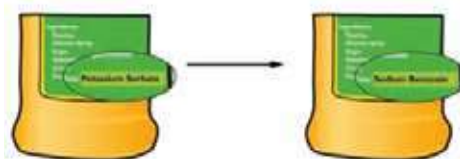
3   **On-pack promotion packaging**

To consider:
It is recommended to also create a
new image for on-pack promotion
packaging. There may be reasons,
such as a short availability period,
that make it impossible to create a
new product image. The decision is
up to the manufacturer.

4   **In-pack promotion packaging**

To consider:
It is recommended that you also
create a new image for in-pack
promotion packaging. There may be
reasons, such as a short availability
period, that make it impossible to
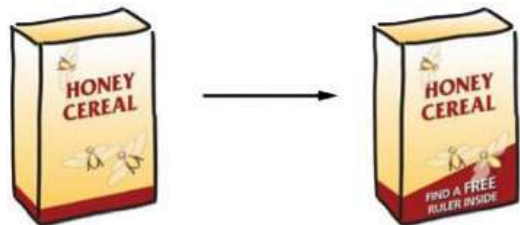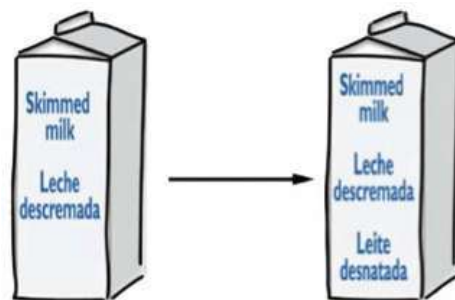create a new product image. The
decision is up to the manufacturer.

5   Addition of further language claims
on the packaging.

To consider:
It is recommended that you create
a new image if the additional
language claim in the image is
visible or legible.
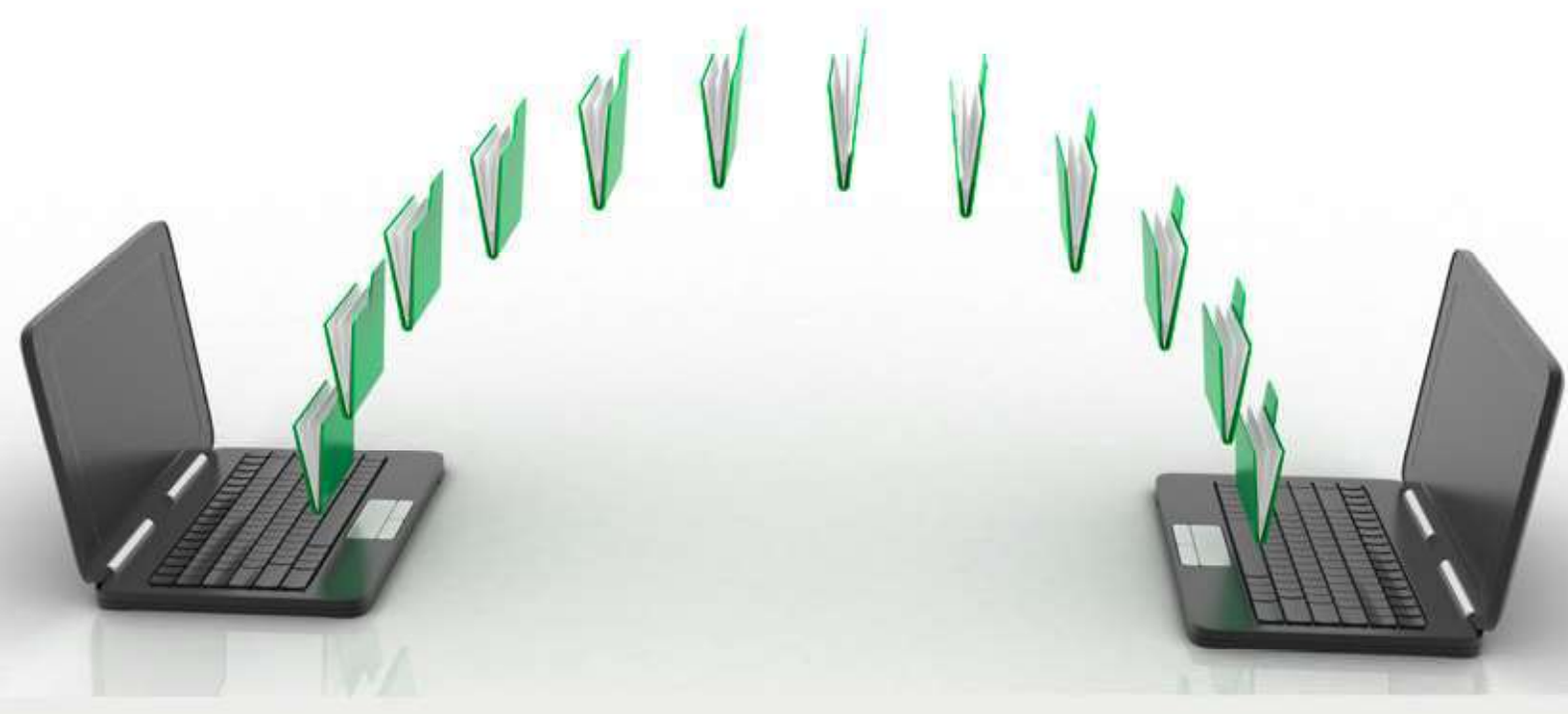
10. TRANSMISSION OF AN IMAGE FILE

The transmission of the product images takes place in connection with the master data. The master data message (CIN message) contains an URL under which the image file was saved.

To ensure a timely and automated processing of image files by a business partner, the URL used must fulfill the following prerequisites:

- The URL must point directly to a single valid image file.

- By opening the URL, a download of the image file must be started. If no direct URL to a single valid image file can be guaranteed, then at least the URL to the respective article with subsequent direct download option must be guaranteed. (Download must be possible without additional product search or registration.)

- The URL must be fully available through HTTP standard port 80 or HTTPS standard port 443.

- The URL must not exceed a character length of up to 2000 characters.

- The URL must not be protected by a login.

- When a new image file is deployed, it is necessary to generate a new unique URL.

- The URL may not be restricted in time as long as this URL is communicated in the master data exchange.

The following attributes are to be filled in combination with master data in the minimum:

ATTRIBUTE	EXPLANATION	STATUS
Referenced file type code (M379)*	Description of the (image) file (e.g. product image)	Mandatory
Uniform resource identifier (M378)*	Direct reference to the corresponding file	Mandatory
File effective start date time (M417)*	Earliest time from which the image may be used or shown. No indication means that the image file can be used immediately.	Optional
File effective end date time (M418)*	After this time, the picture may not be shown anymore.	Optional
Content description (M422)*	Free-text description of the contents of the file such as front view of the consumer article without perspective.	Optional

Below is a filling example:

ATTRIBUTE	FILLING EXAMPLE
Referenced file type code (M379)*	Product image (PRODUCT_IMAGE)
Uniform resource identifier (M378)*	http://cloud.noem.at/owncloud/public.php?service=files&t= b8aa-63290c57190c452171bb17984427&download**
File effective start date time (M417)*	30.08.2017 | 00:00
File effective end date time (M418)*	_
Content description (M422)*	Front view of the consumer article without perspective

*„M-Numbers" (M379, M378, M417, M418, M424) are additional IDs in the Germany, Austria and Switzerland Profile overview documentations.

** This is an example link that does not refer to any image file.

11. TERMS OF USE & COPYRIGHT

Only image files may be provided in which the business partner can be granted an unrestricted right of use. It is therefore important to know the author of the right of use (especially when commissioning external photographers).

A text proposal to clarify the rights of use between manufacturers and producers of images such as external photographers could read as follows: "The client is granted a spatial and temporal unrestricted right to use the images created to advertise the product shown offline as well as online or to evict."

12. ATTACHMENT

ATTACHMENT A: EXAMPLES OF PROFESSIONAL PHOTOGRAPHING AND PROFESSIONAL IMAGE PROCESSING

Without professional photography and professional image post-processing, high quality and attractive product images can not be produced.

Example 1:

Examplel 2:

ATTACHMENT B: EXAMPLES OF A BAD CLIPPING PATH

Clipping path is not exactly at the edge of the product:

Clipping path is not exactly at the edge of the product:

ATTACHMENT C: EXAMPLE OF A DEFECTIVE COMPUTER GENERATED IMAGE

In the graphics program, the generated image was not created carefully enough. In the example, the two product edges do not close exactly.

ATTACHMENT D: EXAMPLE OF A UNIFORM ILLUSTRATION OF THE FRONT PANEL VIA DIFFERENT RANGE / VARIANT

When creating product images, it is important to ensure that assortments or different variants are always created from the same perspective and in the same style (e.g. lighting setup, plasticity, etc.) in order to ensure a harmonious group image.

ATTACHMENT E: EXAMPLES OF THE TRANSMISSION OF AN IMAGE FILE IN THE MASTER DATA EXCHANGE

Further filling examples for the representation of the necessary picture data in the context of the master data exchange.

Example 1: Product image with immediate validity

ATTRIBUTE	FILLING EXAMPLE
Referenced file type code (M379)*	Product image (PRODUCT_IMAGE)
Uniform resource identifier (M378)*	https://nestle.thirdlight.com/gtin/09002100100414.jpg**
File effective start date time (M417)*	– (No indication means that the image file can be used immediately.)
File effective end date time (M418)*	–
Content description (M422)*	–

Example 2: Product image with validity for a certain period

ATTRIBUT	FILLING EXAMPLE
Referenced file type code (M379)*	Product image (PRODUCT_IMAGE)
Uniform resource identifier (M378)*	https://productlibrary.brandbank.com/AssetsPublicLink/?id=QNhkbbuFUkq-m3OOY8irq9A**
File effective start date time (M417)*	30.08.2017 | 00:00
File effective end date time (M418)*	30.08.2019 | 00:00
Content description (M422)*	Front view of the consumer article without perspective

Example 3: Product image with limited validity

ATTRIBUTE	FILLING EXAMPLE
Referenced file type code (M379)*	Product image (PRODUCT_IMAGE)
Uniform resource identifier (M378)*	https://www.gs1.at/download_v=KepCR3Mm-LzAqGfHKR8tF9asIieNbPqNKqAm3Y2kBDFr-SihdD63owG9vNHn8mYoVpFNQZWjMcNQuF-Kox4YWwEnaUKlt**
File effective start date time (M417)*	– (No indication means that the image file can be used immediately.)
File effective end date time (M418)*	30.08.2019 | 00:00
Content description (M422)*	Front view of the consumer article without perspective

*„M-Numbers" (M379, M378, M417, M418, M424) are additional IDs in the Germany, Austria and Switzerland Profile overview documentations.

** This is an example link that does not refer to any image file.

Example 4: Interaction of master data and image data. The following is an explanation of the described scenarios:

Scenario 0: Master data without image data was provided for the article.

Scenario 1: A product image is added to the existing master data.

Scenario 2: A product image already exists and an additional product image is provided for a limited time (promotion period).

ATTRIBUTE	SCENARIO 0	SCENARIO 1	SCENARIO 2
Valid-from date / time (of the entire record)	01.01.2017 00:00	01.06.2017 00:00	01.07.2017 00:00
Referenced file type code (M379)*		PRODUCT_IMAGE	PRODUCT_IMAGE
Uniform resource identifier (M378)*		https://gs1.at/gs1sync/ 9054321000011_1.jpg**	https://gs1.at/gs1sync/ 9054321000011_1.jpg**
File effective start date time (M417)*		01.06.2017| 00:00	01.06.2017| 00:00
File effective end date time (M418)*			
Referenced file type code (M379)*			PRODUCT_IMAGE
Uniform resource identifier (M378)*			https://gs1.at/gs1sync/ 9054321000011_2.jpg**
File effective start date time (M417)*			01.07.2017 | 00:00
File effective end date time (M418)*			30.09.2017 | 00:00

*„M-Numbers" (M379, M378, M417, M418, M424) are additional IDs in the Germany, Austria and Switzerland Profile overview documentations.

** This is an example link that does not refer to any image file.

- **Scenario 3a:** The existing product image is deactivated and replaced by a new product image.

ATTRIBUTE	SCENARIO 0	SCENARIO 1	SCENARIO 3A
Valid-from date / time (of the entire record)	01.01.2017 00:00	01.06.2017 00:00	01.10.2017 00:00
Referenced file type code (M379)*		PRODUCT_IMAGE	PRODUCT_IMAGE
Uniform resource identifier (M378)*		https://gs1.at/gs1sync/ 9054321000011_1.jpg**	https://gs1.at/gs1sync/ 9054321000011_1.jpg**
File effective start date time (M417)*		01.06.2017 00:00	01.06.2017 00:00
File effective end date time (M418)*			30.09.2017 00:00
Referenced file type code (M379)*			PRODUCT_IMAGE
Uniform resource identifier (M378)*			https://gs1.at/gs1sync/ 9054321000011_3.jpg**
File effective start date time (M417)*			01.10.2017 00:00
File effective end date time (M418)*			

*„M-Numbers" (M379, M378, M417, M418, M424) are additional IDs in the Germany, Austria and Switzerland Profile overview documentations.

** This is an example link that does not refer to any image file.

- **Scenario 3b:** The existing product image is replaced by a new product image (image URL remains the same).

ATTRIBUTE	SCENARIO 0	SCENARIO 1	SCENARIO 3B
Valid-from date / time (of the entire record)	01.01.2017 00:00	01.06.2017 00:00	01.10.2017 00:00
Referenced file type code (M379)*		PRODUCT_IMAGE	PRODUCT_IMAGE
Uniform resource identifier (M378)*		https://gs1.at/gtin/ 9054321000011_1.jpg**	https://gs1.at/gs1sync/ 9054321000011_1.jpg**
File effective start date time (M417)*		01.06.2017 00:00	01.10.2017 00:00
File effective end date time (M418)*			

*„M-Numbers" (M379, M378, M417, M418, M424) are additional IDs in the Germany, Austria and Switzerland Profile overview documentations.

** This is an example link that does not refer to any image file.

IMPRINT

GS1 Austria GmbH
Brahmsplatz 3
A-1040 Vienna
Tel.: +43 (0)1 505 86 01
ecr@ecr-austria.at

Company register: FN105353g
GLN: 909999900000
DVR: 0642649
UID: ATU16113300

Bank: VKB Bank
IBAN: AT421860000014518260
BIC: VKBLAT2L

Enterprise purpose: IT services
Basic direction: This website is for information
purposes to support the purpose of the business.
Managing director: Mag. Gregor Herzog, MBA
ECG of GS1 Austria GmbH of the WKO
GS1 is a registered trademark of GS1 AISB

CONTACT

ECR Austria
Brahmsplatz 3
A-1040 Vienna
Tel.: +43 (0) 1 505 86 01

ecr@ecr-austria.at