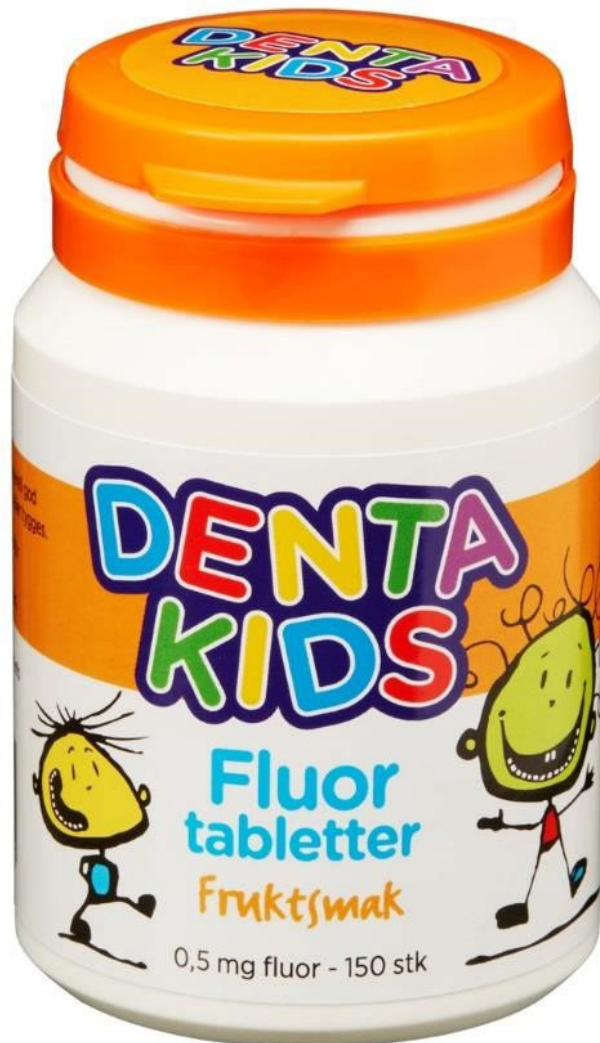


Tradesolution MediaStore 2.0

Requirements for product images and product owners



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Document version 1.6

Tradesolution MediaStore
Requirements for Product Images and Product Owners
Document version 1.6
1. October 2015

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With subject to error.

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Change Log

This section shows a log of changes that affect requirements for product images and product owners between document versions. We encourage reading of sections referred to as the Change log not includes changes to descriptions, figures and formulations.

Version 1.6

Multi-side standing products

Rule for Camera to image angles 1C, 1R and 1C is changed from 25-40 degrees to 35-70 degrees. See information in section «Approved image sets for F-pack (Consumer Unit)”.

Introduction

The following document describes what is meant by product images and requirements applying to the upload and approval of these in Tradesolution MediaStore version 2.0.

Responsibility for product images made available by the requirements of this document is situated with the product owner.

Note: This document overrides the information about the solution, orally or written, during the project period for topics described.

Description of the Solution

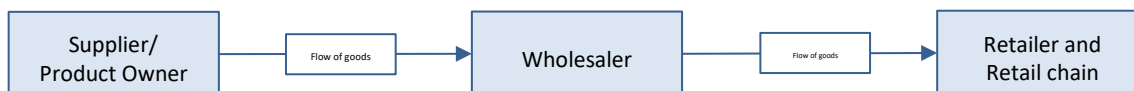
Tradesolution MediaStore (here after TMS) is a national media data base where media content is stored and shared within the supply chain. The media content is for use in sales and marketing material, and solutions in B2C and B2B, and also for space management and store planning.

In version 2.0 of TMS, the main focus is to make the product images available for the industry.

Parties and Roles

Parties in the grocery sector means all parties directly involved in the traditional flow of goods, such as; product owners/suppliers, wholesalers and retail chains.

Roles in the product flow:



Solution Model

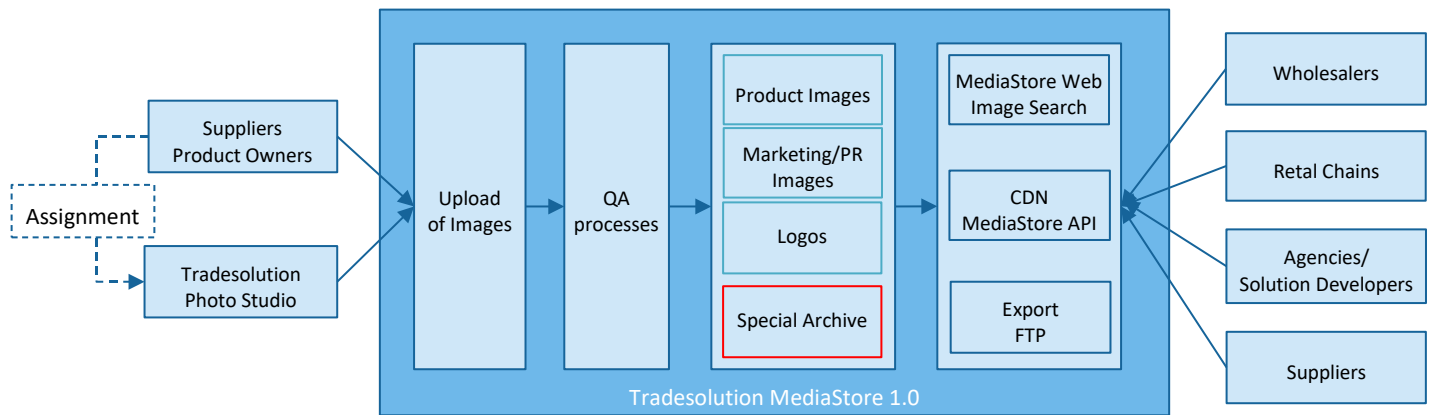
The brand owner is responsible for media content made available in TMS.

Note: The requirements for what must at all times be available media content is determined jointly by the industry and by Tradesolution AS (Tradesolution AS is owned by industry representatives).

Upload of media content is done by the product owner or by Tradesolution AS (commissioned by the product owner). All media content is to be quality assured in a "quality assurance" process (hereafter QA) in Tradesolution AS before the media content is made available to the trading parts in TMS (see model).

The QA process will ensure images adhering to correct physically and visual requirements. There are requirements for size, colours/colour definitions, connected to the correct product as well as being visually compliant. If an image is found invalid in one of the QA steps the image will not be made available in TMS.

Figure showing parties and main functions in TMS 1.0:



Use and copyright

The product owner is responsible that the necessary rights of use and copyrights are in place for the images. Agreements for TMS and conditions are defined in a separate document. This document is not intended to clarify the legal issues related to the images.

Key definitions

Product images

Product image is a photograph of a product as it appears at the point of sale. This is normally an image of the Consumer Unit (hereafter F-pack) in its packaging. Trading Units (hereafter D-pack) which is designed to be placed directly into the shelves will also have their own product images – also including the packaging, the tray the F-pack is standing on.

Examples of product images of F-pack (Consumer Unit):



Space- and marketing images

The images in TMS will be used both for space, sales and marketing purposes.

In space management the images are used to create planograms, build shelves and to plan layout of shops.

Sales and marketing images are used in all forms of marketing of the products, such as customer magazines, e-commerce, apps and posters / banners.

Examples of market channels where product images are being used:



Example of product images used for space planning:



Image set

An image set should cover all of the images used for space management, sales and marketing.

There should be images of each side of a product. The facing of the product should also have a set of images where the camera is angled (specified angles) to display a "3D effect" of the product. An image set consists of all the images required for the product. The requirement for the image angles that form an approved set of images may be different, depending on how the product appears. Required image angles per product is defined in the section "Products, image angles and image sets."

The requirement for the image angles included in an image set for sales and marketing photographs and space images, is done in consultation with space and marketing departments in NorgesGruppen, Coop and Rema.

The requirements for an approved image set may change over time based on new requirements for the use and applications occurring in the industry.

Example of a complete image set, including the three images with 3D effect of the facing:



Note: The angle 1R, 1C and 1L is often referred to as marketing images. Other angles often referred to as "space images". Angle 1N is often used for marketing purposes. This image angle is often referred to space and marketing image.

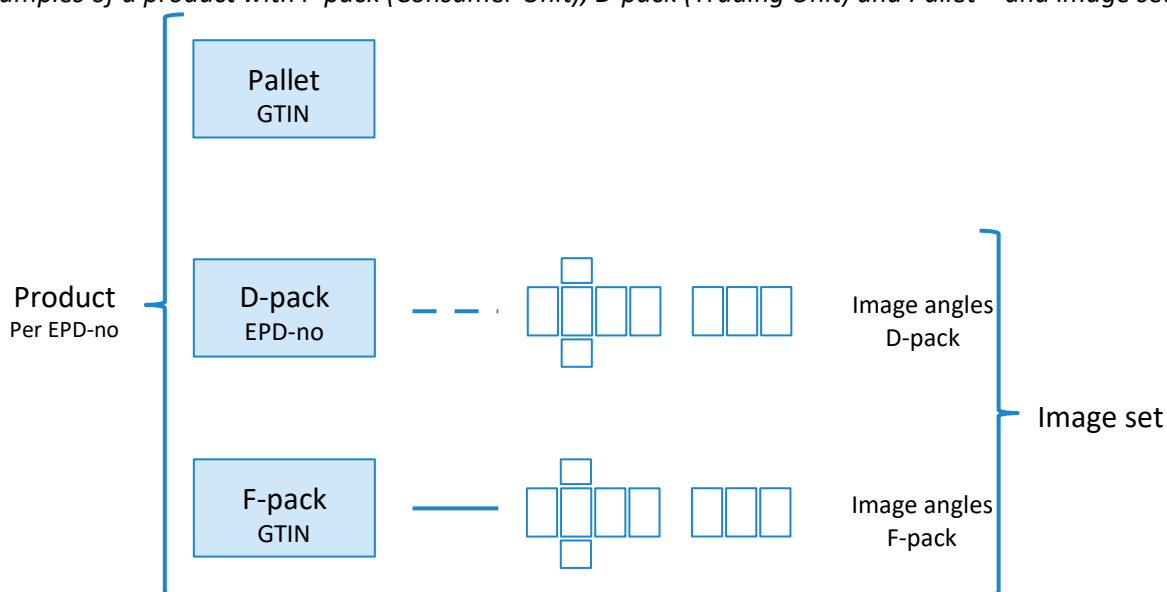
Products, image angles and image sets

What is a Product in MediaStore?

A product is the sum of all packaging levels, normally F-pack, D-pack and Pallet), all identified with an EPD number. Each packaging level is identified with a GTIN number.

The requirements for an image set are described in the section “Image set for F-pack (Consumer Unit)” and “Image set for D-pack (Trading Unit)”.

Examples of a product with F-pack (Consumer Unit), D-pack (Trading Unit) and Pallet – and image set:



How to define the product facing?

Note: Common understanding of the different facings (image angle) to a package is essential. Particularly important for those working with space management as well as for marketing purposes. Conflict between systems using the images may occur based on different perception of what is the front of a product.

Front of a product is determined by the "Rules of measurement for products" (see section. 1.7 in the Operation Manual EPD Datapool).

Determination of image angles (facings) in TMS is based basis on one front to the product. The other image angles will then be a given. The sum of all image angles forming an image set for the product.

The QA process will have final authority in relation to defining the front of a product. In some product categories, certain products stand out with other facings than what would naturally be used, and this can be challenging in connection with space. TMS must still use the current rules for finding the right front of the product.

Below is an example from the section "Rules of measurement for products" in the User Manual EPD Datapool which shows the principle of how to find the facing / front of products:

1.7 Måleregler for produkter

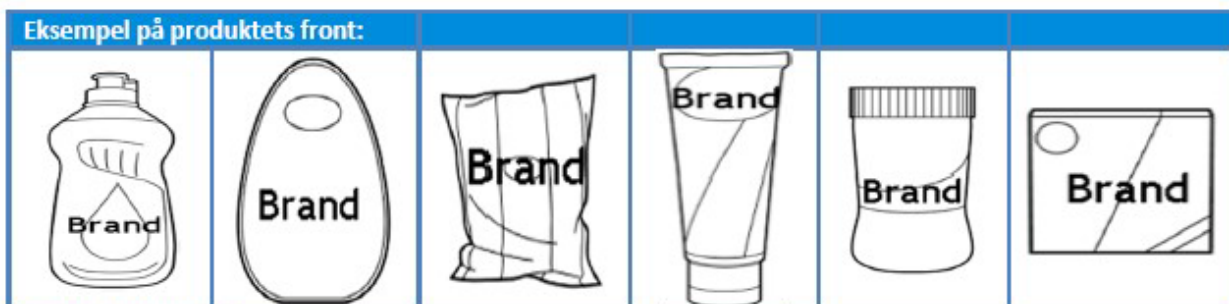
Produktets front må avgjøres før produktet kan måles.

1.7.1 Avgjøre hva som er produktets front

Spesifisering av siden som er designet som front er avgjørende for spesifisering av høyde, bredde og dybde.

Fronten er den siden med det største overflatearealet, merkt med produktets varemerke (brand).

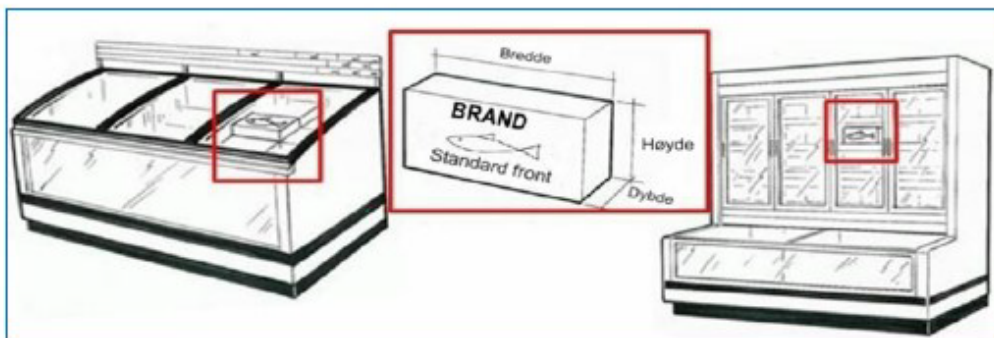
Her følger flere eksempel på hva som er produktets front:



Figur 1-7: Produktets front

1.7.1.1 Front vs. presentasjon av produktet i butikk

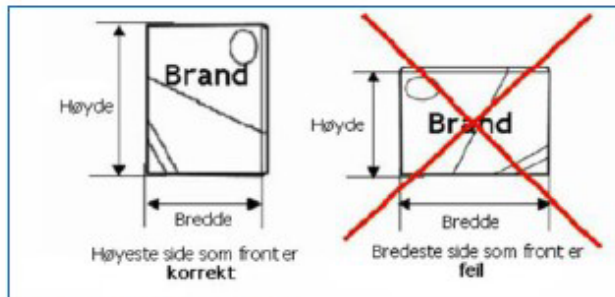
Fronten må **ikke** forveksles med den endelige posisjoneringen eller presentasjonen av et produkt i butikkhyllene. Man må derfor være klar over at produktets front ikke nødvendigvis er den siden som vil bli presentert i en butikkhylle. Bilde under viser forskjellig posisjonering/presentasjon av samme vare:



Figur 1-8: Visning av produktets front i butikk.

1.7.1.2 Produkter med to fronter (facinger)

En rekke varer produseres med flere mulige front-sider/facinger (orientering av merke-/produkt navn er slik at de kan presenteres både horisontalt og vertikalt i butikkhyllen). Se bildet nedenfor, hvor fronten med høyeste side i forhold til teksten (brand) er korrekt front ved registrering av produktinformasjonen i EPD-basen.



Figur 1-9: Produkt med to fronter

Example 1: The figure shows a product whose main facing (product front) are marked:



Example 2: The figure shows a product where the facing (photo taken from straight ahead) is marked:



Note: Use of the correct angles (image angle) of the product is very important when uploading product images to TMS. The interface in the solution will help the user to define the correct angle for each product image.

Identifying sides of the product and camera angles

How to find and give names on the pages of a product id is defined in GS1's standard for identification and naming of image angles for product images (sum of requirements for marketing images and space images for grocery products). The standard forms the basis for how the different image angles are identified in TMS.

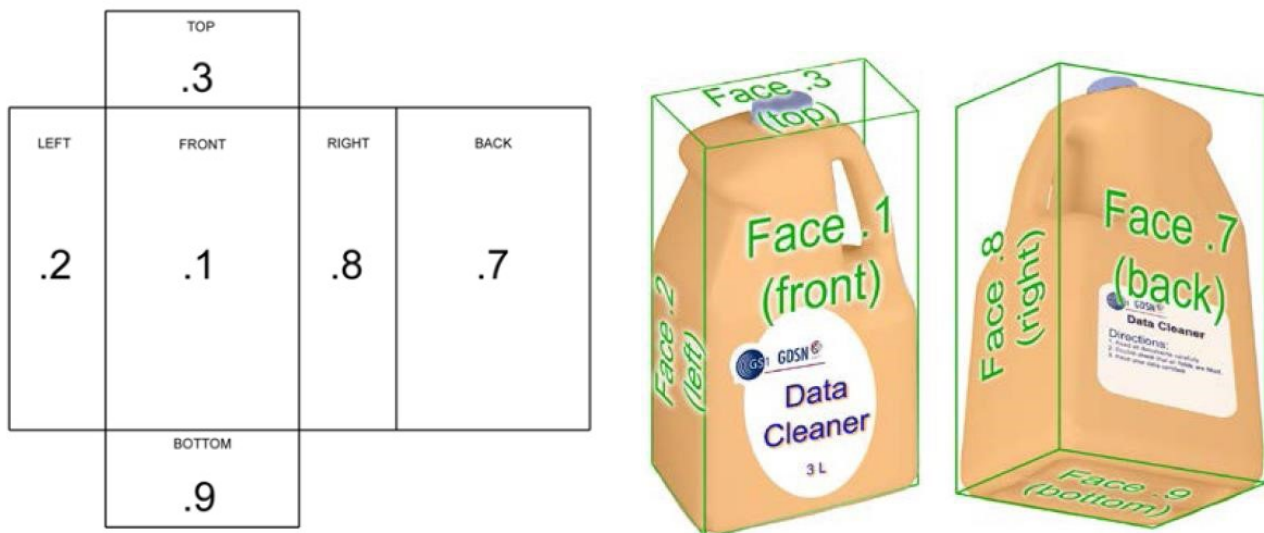
NOTE: To specify a product image uniquely in an image set, the code for the image angle is used, for example **1N** and **1R**.

Sides

The product sides are defined by a unique number. The numbers are the foundation for the identification of the different sides of the products (image angles). All sides of a product are numbered by the following scheme:

- 1 = Front
- 2 = Left
- 3 = Top
- 7 = Back
- 8 = Right
- 9 = Bottom

Example of a packet numbered with the different image angles (facing):

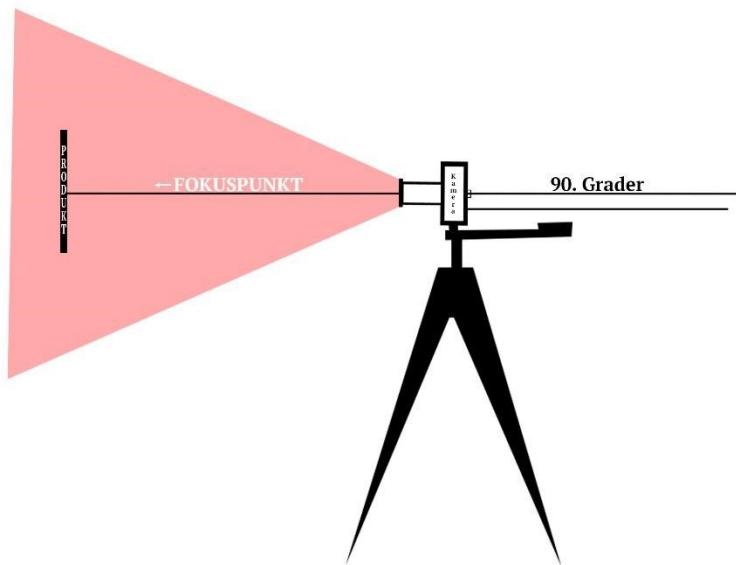


Camera angle

It is of great importance that the product images are to be taken at the correct angle. Product images, both taken with the camera angle 90 degrees right up front the product and with selected angles for 3D effect. Only images of front facing (page 1) are to be taken with the 3D effect.

To achieve the 3D effect, the camera is to be angled so that the left and right sides of the products are displayed and centered. In addition the camera has to be angled from above or beneath the product. **Which combinations of angles to use depends on the product packaging and design. Classification of this of**

angle combination is described in detail in section "Known image set to Consumer Unit." Example of camera setup with a 90 degree angle and focal point (designation **N**):



The figures below show angle combinations of images with 3D effect and naming of these:

Kameravinkel ovenfra i kombinasjon med sidevinkler:



Vinkel fra venstre side
Benevnelse: L



Vinkel sentrert mot produktet
Benevnelse: C



Vinkel fra høyre side
Benevnelse: R

Kameravinkel nedenfra i kombinasjon med sidevinkler:



Vinkel fra venstre side
Benevnelse: L



Vinkel sentrert mot produktet
Benevnelse: C



Vinkel fra høyre side
Benevnelse: R

NOTE: Camera angle for side angle from left (L) and right (S) have to have 25 degree angle to the product.

Combination side and camera angle

One image set may have a maximum of the following combinations of sides and image angles:

□ 1N	Facing / front with camera angle 90 degrees
□ 2N	Left side with camera angle 90 degrees
□ 3N	Top with camera angle 90 degrees
□ 7N	Back with camera angle 90 degrees
□ 8N	Right side with camera angle 90 degrees
□ 9N	Bottom with camera angle 90 degrees
□ 1C	Facing/front with 3D effect (see «Approved image set to F-pack» for details on angles)
□ 1L	Left side with 3D effect (see «Approved image set to F-pack» for details on angles)
□ 1R	Right side with 3D effect (see «Approved image set to F-pack» for details on angles)

Approved image sets to F-pack (Consumer Unit)

All products in the EPD Datapool must have an approved set of images on the F-pack on grocery products. If F-pack does not exist, see "Image set to D-pack (Trading Unit)."

Note: The requirement to which sides of the product to be photographed and the correct camera angle combinations to be used to form an approved set of images depends on the package format (product appearance). The F-packs (Consumer Units) are classified according to the following groups of packages:

- Multi sided
- Multi sided landscape format
- Dual sided
- Cylinder

Any disagreement as to how a product should be placed in relation to these groups is to be decided by Tradesolution AS.

Note: Image examples of products and further descriptions associated with the various groupings is to be found in Appendix 3.

Note: It is allowed to upload further image angles of a product than defined as the minimum, however correct angles are to be used.

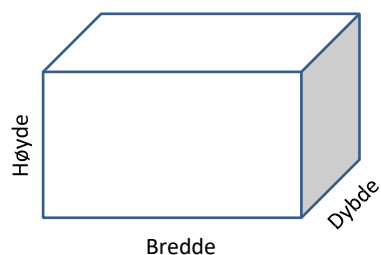
Multi sided products

A multi sided F-pack has clearly separate sides and appears as a three-dimensional packaging. This is typically a box. Each side appears with its own elements and information.

Rule 1: All products with separate sides are to be classified as multi sided regardless of the depth

Rule 2: Products that do not have separate sides, but has more than 2.5 cm depth should also be classified as multi sided. (See also classification of dual sided products.)

Example of multi sided F-pack:



The following image angles are included as a minimum requirement to a multi sided F-pack:

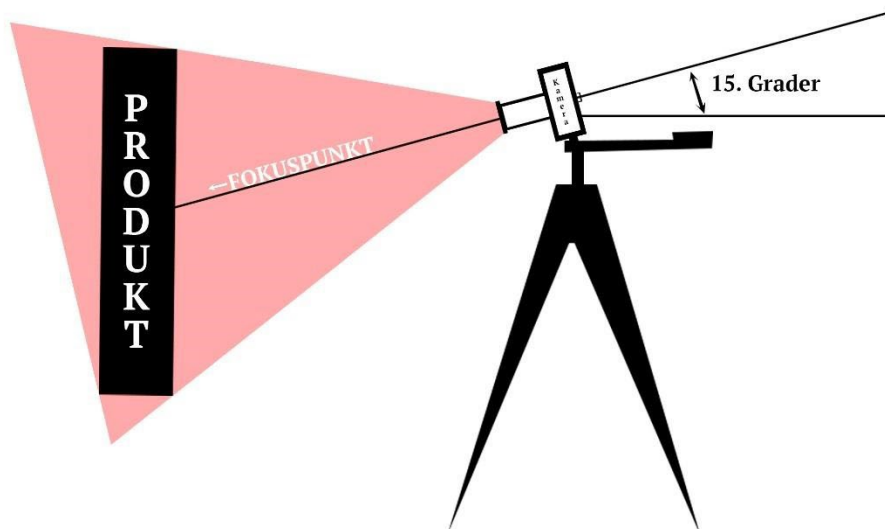
- **1N** Facing/front
- **2N** Left side
- **8N** Right side
- **7N** Back side
- **3N** Top (if necessary/important information)
- **1C** Front facing with 3D-effect (camera angle from above, 15 degrees)
- **1L** Left side with 3D-effect (camera angle from above, 15 degrees)
- **1R** Right side with 3D-effect (camera angle from above, 15 degrees)

Note: It is possible upload further images of a product than defined as the minimum, however correct angles are to be used.

The figure shows an image set for a multi sided F-pack. Minimum requirements of image angles are marked:



Example of camera configuration for multi sided Standing format packs:



Multi sided laying products

A multi sided laying F-pack has separate sides and is presented in a 3-dimentional package such as a box. Each side appears separately either as side elements or information sides on its own. Normally the product is lying in the shelf and the main facing is from above. There are several variations within this group and products are placed variously in the shelves.

Example of two multi sided laying F-packs (images showing camera angle from beneath, normally marketing images are shot from above):

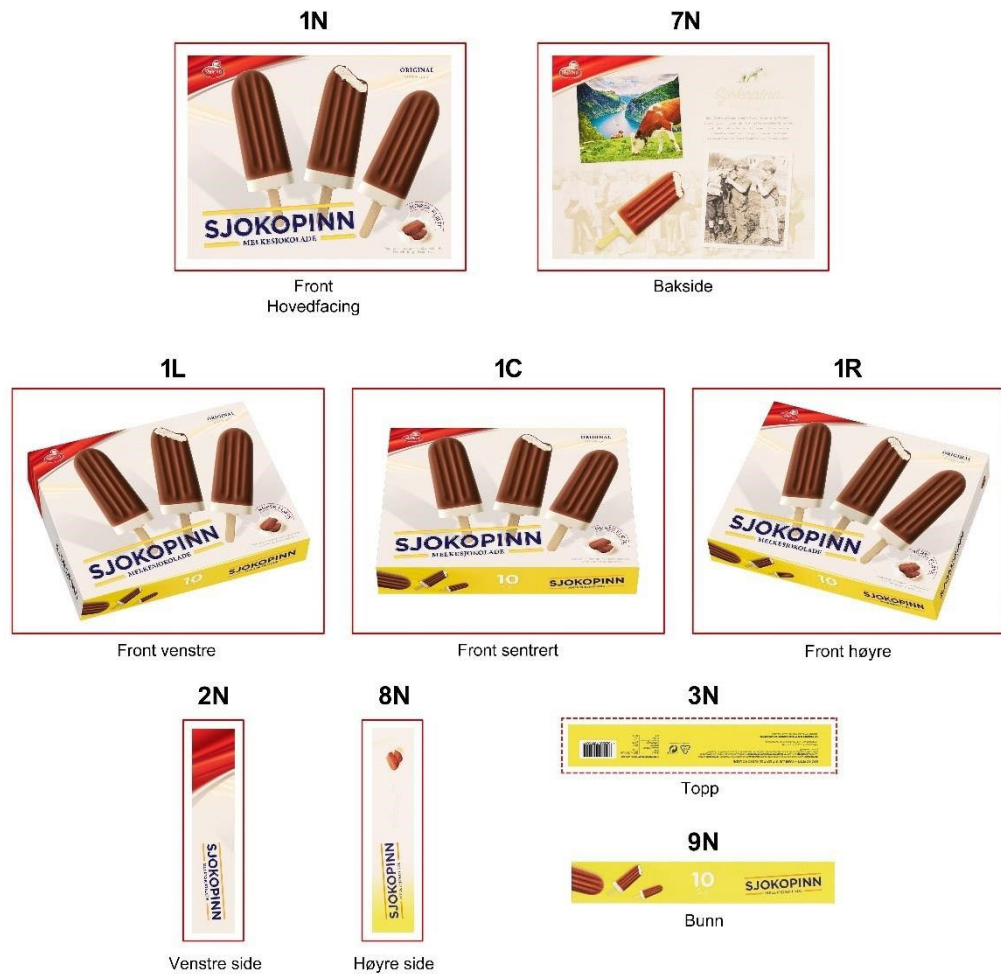


For a multi sided laying displayed F-pack the following image angles is the minimum requirements:

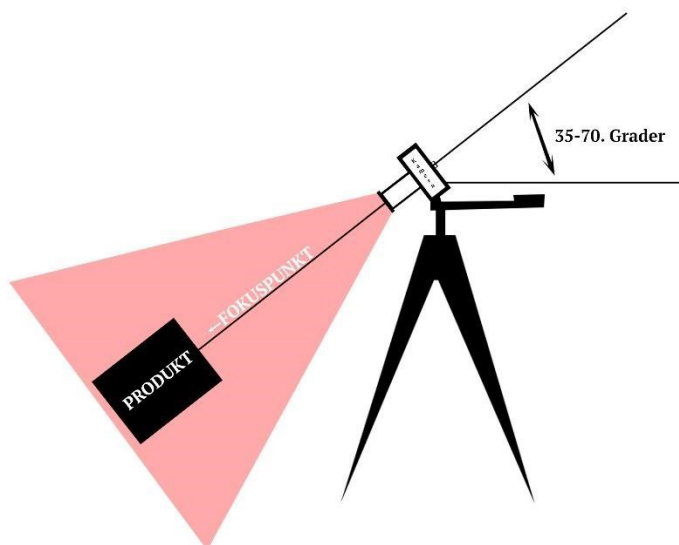
- **1N** Facing/front
- **2N** Left side
- **8N** Right side
- **7N** Back side
- **3N** Top (if necessary/important information)
- **1C** Front with 3D-effect (camera angle from beneath **35 – 70** degrees)
- **1L** Left side with 3D-effect (camera angle from beneath **35 – 70** degrees)
- **1R** Right side with 3D-effect (camera angle from beneath **35 – 70** degrees)

Note: What distinguishes this group of products from the other is that the marketing images use a camera angle that takes an image from underneath of the product (not from above as regards the other market images). The camera angle should then be **35-70** degrees from underneath.

The figure shows an image set for a multi sided laying F-pack. Minimum requirements of image angles are marked:



Example of camera configuration for multi sided landscape format packs:



Dual sided products

A dual sided F-pack is basically flat with two sides (two-dimensional), such as a bag of soup or a magazine. If depth of the product exceeds 2.5 cm, the product is classified as a multisided product.

Example of dual sided F-packs:



Note: If the depth of a bag is used for information about the product or that the depth is of importance for space management the product shall be perceived as a multi sided product.

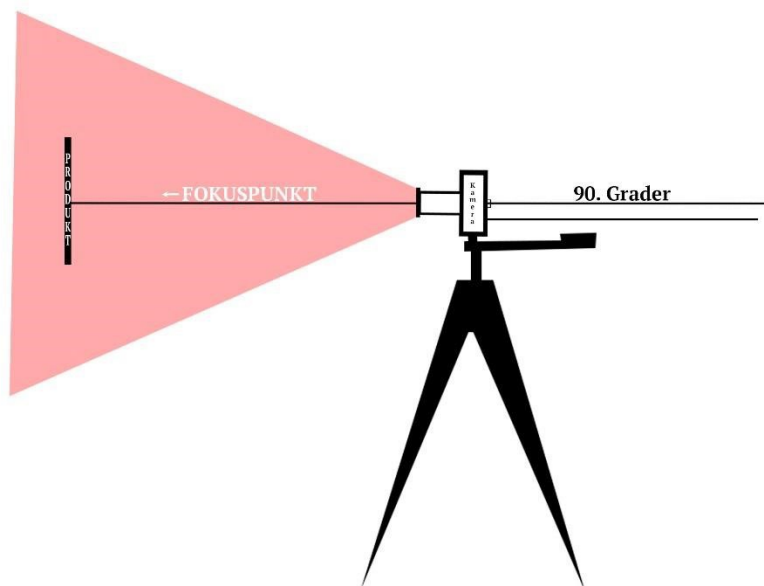
For a dual sided F-pack the following image angles is covering the minimum requirements:

- **1N** Front side
- **7N** Back side

Figure showing image set for dual sided F-pack. Minimum requirements of image angles are marked (depth is less than 2.5 cm and the product does not have separate sides):



Example of camera configuration for dual sided laying packs:



Cylinder products

A cylinder F-pack has basically only a frontside and a backside of the package. Typical of this product is the classic tin. The product still has a depth which is important for space to take into consideration. In a marketing context one often need an angled image for unified representation compared to other three-dimensional products.

Example of three cylinder F-pack:



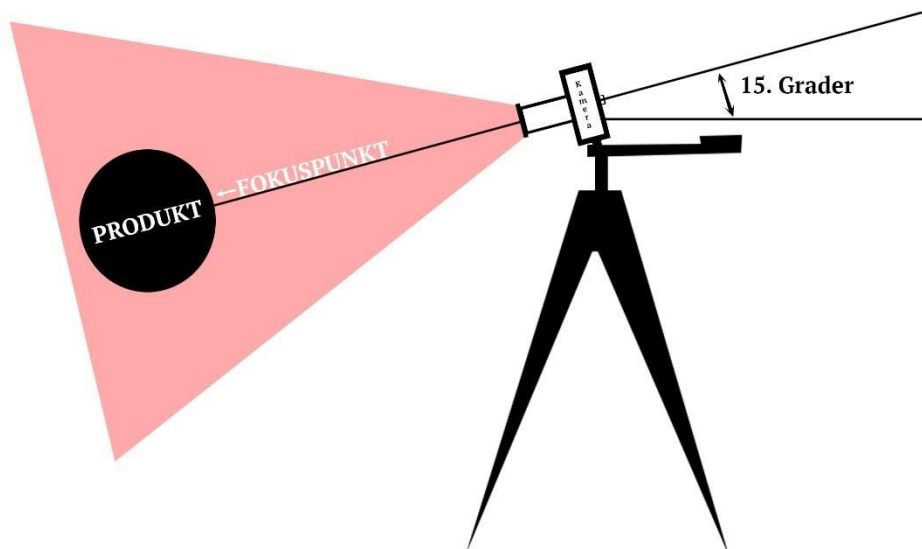
For a cylinder F-pack the following image angles is the minimum requirements:

- 1N Facing/front
- 2N Left side
- 8N Right side
- 7N Back side
- 3N Top (if necessary/important information)
- 1C Front with 3D-effect (camera angel from above 15 degrees)

Figure showing image set for cylinder sided F-pack. Minimum requirements of image angles are marked:



Example of camera configuration for cylinder packs:



*) Exemption from the 15 degrees rule

If the product has important information/design on both the top and the front, a camera angle up to 35 degrees is allowed.

Examples of products where there is acceptance for a camera angle up to 35 degrees:



Image set for D-pack (Trading Unit)

Images of D-pack is required for space purposes when the D-pack is designed to be put straight into the shelf either by removing plastic or by removing the top making the F-pack available. Images of D-pack should be taken with corresponding F-pack inside.

In TMS 1.0 images of display units are voluntarily.

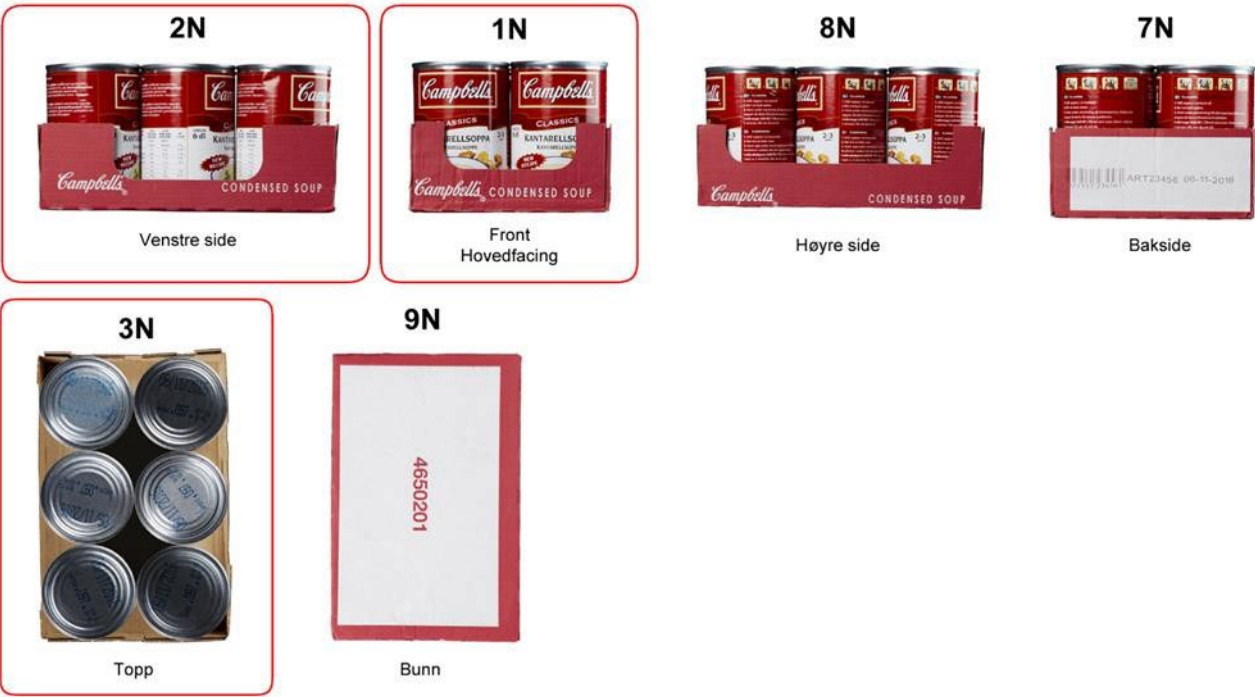
Examples of D-pack in store requiring images:



For a D-pack the following image angles is the minimum requirements:

- 1N Facing/front
- 2N Left side
- 3N Top

Figure showing image set for D-pack. Minimum requirements of image angles are marked:



Deadlines and scope of products

The deadline for approved product images available in version 2.0 of TMS applies to all products that are active or to be launched in EPD.

Launches

Requirements to complete approved image set is within week minus 3 (three weeks before the launch week). This applies to all launch windows.

If a product image does not exist when EPD Sjekkpunkt receives products for measuring product, Tradesolution will photograph space angles. Product owner will be charged for this. This requires that the products delivered are of sufficient quality and are based on availability in the studio.

All the images in the image set of a product should be approved according to the requirements described in this document.

Physical requirements for product images

Clipping path/Mask

All images stored in TMS must have a clipping path due to exposal of the product.

Note: If the image uploaded does not have a clipping path, or if the quality of the existing clipping path is not meeting the standards required, we will add a new clipping path at the customers cost.

Image size – as of 1. March 2015

The image size (resolution) for the longest side must have a minimum of **3508** pixels, and not exceed 8000 pixels (corresponding longest side in an A4 print format in 300 dpi) when uploading. This applies to the following image angles:

- 1N
- 1C
- 1L
- 1R

For other image angles, and for Dpak, the minimum resolution for longest side is minimum 1748 pixels (corresponding longest side in an A6 print format in 300 dpi) when uploading. This applies to the following image angles:

- 2N
- 3N
- 7N
- 8N
- 9N

Figure shows how to measure the longest side of the image:



Note: Product images are always stored at full resolution in TMS. The wanted format and size is specified in the image download / export process.

File format and color mode

File Format: TIFF, JPG, PNG

Color Mode: Adobe RGB will be stored in the image base. sRGB will be accepted but imports will be converted into AdobeRGB. sRGB is an option when exporting images from TMS.

Other file characteristics

No alpha channels or layers, guide, raster or rulers. No bubbles, fingerprints or Newton's rings from scans. No transition functions or postscript color management. No signatures or visible watermarks. No compression artefacts. No scanning of printed pages. No sign of dust or scratches. No produced shadows. Moiré pattern should be minimized.

Note: Violations of this can lead to necessary retouch and edit of images with associated costs.

Same physical requirements for marketing images and space images

Note: No distinction is made on the requirements to "market images" and "space images" in relation to cropping, file format and color mode when you want situations where "space images" may be used for marketing (i.e.: publications, posters, web pages, apps, etc.).

Visual requirements for product images

Checklist visual requirements

To assess whether an image is within the visual requirements, a checklist described in this section is being used. This applies to all images / image angles:

1. Image background and shadows

All images must have white or transparent background without shadows.

2. Image sharpnes / focus

Entire product must be 100% sharp. Especially important to make sure the image has full depth of field. To check the sharpness the product image should be assessed at 100%.

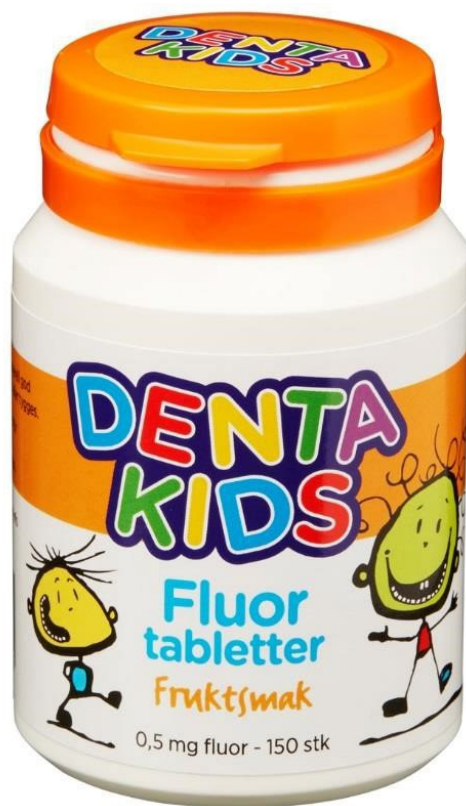
This image shows an example of the correct sharpness:



3. Illumination and color

Ensure uniform illumination over the product. Avoid dark shadow areas. Avoid excessive gloss and reflections. Reflectors/reflections have to look natural and realistic.

Example of correct lighting and color:



4. Edges

The product should have clear edges around the product's circumference. The edges should not "overflow" in the background. Make sure stray light is not interfering with the edges of the product. See example images below.

Example of image with too much stray light at the edges (image not approved):



Example of image with correct edge without stray light (image approved image relative to the edges):



5. Retouch

The vast majority of product images usually require a retouch to remove dust / scratches / stains often not visible to the normal eye but which can appear clearly when using images in print - especially for large posters, banners and boards. There may also be damage to the product packaging requiring a retouch.

TMS may order that the product image is given a retouch at the product owner's expense. This is decided in the QA process.

It will normally not be performed retouch in QA on these image angles:

- 2N
- 3N
- 7N
- 8N
- 9N

Time and date stamp or retail prices

Product images are not to have time and date stamps or retail prices that appear visible. Preferably images should be taken of products which do not have this applied.

The product background where e.g. time and date stamp or retail price is visible will determine whether a retouch is easy, difficult or time consuming).

Appendix 1: What to consider when placing an order for Tradesolution PhotoStudio?

Booking of PhotoStudio

Photo shoot must be ordered in advance to get booking in the studio. Check www.tradesolution.no and select PhotoStudio for practical details for placing the order.

Products for photographing

The products should be hand-picked and checked for:

- Error in packaging or printing (color, placement, glue residue, etc.)
- Free from damage such as scratches, dents, etc.
- Preferably without date stamp (will require retouching or preparations)
- Preferably without price information (will require retouching)

Minimum one D-pack and at least one F-pack delivered according to the requirement above. If retouch must be done, e.g. remove back label, there should be a minimum of three F-packs. All delivered according to the requirement above.

Frozen products should as far as possible be delivered without content if packaging is transparent.

Any questions, please contact support.

Product information needed when booking PhotoStudio

The following information about the item is needed for Tradesolution to process and upload the images directly to the TMS after shooting (this must be completed in connection with placing an order):

Identification of the product

- GTIN
- EPD No (if exist)
- Product name
- Brand name

New product

- ☐ Set launch window product to apply from

New design variant / promotion product

- ☐ Set period for image set to be available (from/to date)

Existing products

- Replace existing main images: Yes/No

Requirements for graphic images

Graphic product images can be uploaded to the MediaStore archive. Graphic images have the same requirements as photographs when it comes to angles, number of images, quality of image etc.

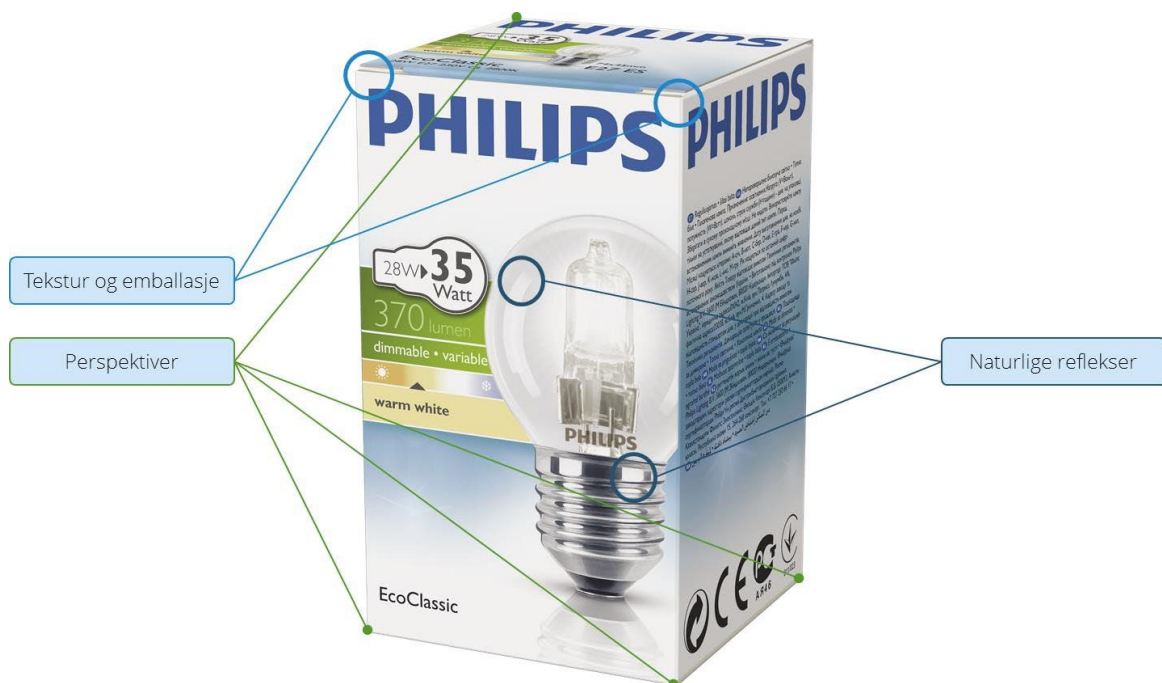
In addition, the following requirements

- Texture and packaging should be visible
- Light/shadows should look natural
- Colours should be true to the original product
- Shapes and sizes should be true to the original product

It's important that a graphic image looks natural and correct according to the original product.

Graphic images without texture or accuracy will be rejected.

An example of an approved graphic image :



Examples of graphic images that are not approved:



Ingen tegn til tekstur eller naturlige reflekser.
For glatt. Ser ikke naturlig ut.



Ingen tegn til emballasje.
Ser ut som en plakat...



Ingen tegn til emballasje.
Ser ut som en plakat...

Mobile friendly Hero images

The purpose of these images is that relevant information is visible for small screens.

- Focus on the three elements Brand, Size og Flavour. This is done by increasing the size of these elements.
- Hero images should be recognizable, so that the colours, fonts and other elements should be the same as on the original product.
- To create enough space for the three elements, the label can be expanded to make it more visible in the mobile optimized image.
- Text and elements that are not relevant can be removed to avoid that the image looks cluttered.
- All changes should be done within the limits of the physical product.