

ARGE Neue Medien

International Data Quality Guideline ARGE

DATA QUALITY GUIDELINE

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Introduction

The continuous improvement of the quality of electronic product data represents the basis of any process optimization.

Achieving a higher product data quality is the common goal of all distribution levels and also encompasses the involvement of all market partners of the HVAC industry. In order to further optimize the standardized electronic data exchange – and in particular the quality of the article master data – in the future, harmonizing the standards and regulations existing in the field and documenting the partners' individual requirements are issues important to the industry, trade and crafts. This is intended to provide common ground for all those involved for the next steps to be taken while working towards improved data quality.

This document provides a detailed overview of the data contents that are identical for all distribution levels and of the understanding of data quality. When it comes to data contents, it is important that all distribution levels share the same structure, and above all the same understanding regarding content. Defining data contents is not about describing an interface for exchange between software systems, but about showing comprehensive detailed information on the respective contents.

The following documents are available for the following document:

- Annex 1: CSV

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1 Definition of data quality

Defining data quality is first and foremost about evaluating the article master data quality of different databases applying fixed and consistent quality criteria, and, on the basis of the findings, increasing said quality in the long term. The manufacturer-specific requirements existing in the industry prevent the single organizations from fulfilling certain requirements on data quality, because inspection-relevant data contents are not relevant to the product portfolio and are not commonly used. For this reason, it is necessary to consider data quality or the fulfilment of a quality requirement separately in individual cases. To this end, a so-called manufacturer profile is implemented. In there, the organization may transmit general requirements and statements on specific data contents together with its data delivery. This profile will be an integral part of every data verification and facilitate a differentiated evaluation of the master data at hand.

A to-do list will be implemented in addition to the manufacturer profile. By means of this list, an organization is invited to give binding statements as to by when they will be able to fulfil requirements that cannot be fulfilled immediately. It is the responsibility of the ARGE to check that the binding statements are upheld.

1.1 Quality categories

When determining and classifying the quality of article master data, the following quality categories apply:

Quality category 1 – technically necessary:

These are contents that are necessary from a technological point of view to ensure that a master data record can be processed (e.g. article number).

Quality category 1* – technically necessary if used:

A content consists of different information details. If the content is started with the first information detail, giving further information details may become necessary. Price information for instance consist of the actual price, i.e. the value, but also of other necessary information, namely price type, currency, price basis, and price basis unit.

Quality category 2 – quality criterion obligation:

These are contents that are not mandatory from a merely technological point of view, such as an article number, but are indeed mandatory in terms of content. In international goods traffic, for instance, the goods number is required for customs- and Intrastat declarations.

Quality category 3 – conditional quality criterion obligation:

A condition such as a product characteristic makes certain further information necessary. If a product has the characteristic of being a hazardous substance, providing further details such as UN number, hazard class or transport category is mandatory. Another condition for the mandatory provision of data contents is publication, such as in print media or on the Internet.

Quality category 4 – supplementary quality criterion for good data quality:

By providing information such as the definition of accessory lists relating to an article a service may be rendered to one's own customers. Hence, this is a content by means of which a quality requirement on the data is fulfilled, thus achieving a quality criterion.

Quality category 5 – optional:

The data contain additional contents that further increase quality, for instance URLs leading to more detailed article information or documents such as installation- or service instructions.

1.2 Article types

Article types are defined in order to be able to also consider article particularities with regard to quality requirements. The following rule applies to the article types Spare Part A, B or C: **Only spare parts that are ordered on a regular basis are relevant to all distribution levels.**

As a rule, users are invited to provide information as comprehensively as possible.

The following table provides an overview of possible article types and a description of their contents:

Article type	Definition
Standard article	All articles are standard articles, unless they are allocated to one of the following article types.
Spare part A	Spare parts that are “fast-moving items”, i.e. this article is in high demand. From the manufacturer’s point of view, these spare parts should be available in the warehouses of the trade. The class A spare parts supplied should account for approx. 80 % of the total sales of spare parts by a manufacturer.
Spare part B	Spare parts that are “slow-moving items”, i.e. this article is in demand, however not in high demand. The manufacturer recommends that the trade keeps these spare parts in stock. The class B spare parts supplied should account for approx. 15 % of the total sales of spare parts by a manufacturer.
Spare part C	Spare parts that are seldom ordered. The manufacturer does not recommend that the trade keeps these spare parts in stock. The class C spare parts supplied should account for approx. 5 % of the total sales of spare parts by a manufacturer.
Variant	A basic product that will only be made available as an article in its final form e.g. as a combination of colour, surface, handles or materials.
Customization	An article whose final form is specifically defined, e.g. in agreement with the customer.
Service/software	Services are e.g. calibration fees or measurement fees.
Package/set	If several articles are combined to form one article, they become a set or package.
Non-core item (< 1 % assortment)	Articles that are no standard articles and cannot be allocated to any other article type, such as sample boards, are non-core items.
Calculation items	Calculation items are items based on which articles can be defined in more detail (e.g. m ² of a panel heating). These items are not available for order and are intended for the calculation or estimation of an article that is available for order.
Bulk goods	Bulk goods are bulkable granular or lumpy materials.

2 Header data

All information pertaining to a master data delivery are divided in header- and article data. The header data are so-called “administrative data” for the master data server and contain **the technically required information on the entire data delivery**. On the one hand, these are information on the supplier or organization, and on the other hand information on the catalogue. A catalogue is a master data record. A supplier may have several catalogues that divide their existing overall range in sub-ranges. For instance, sub-ranges can be product lines, brands, or products and spare parts.

General information on the permitted character set, applicable to an entire data delivery:

Structure	Field title	Format
Text	Character set	Alphanumeric characters, upper case and lower case, with umlauts and blanks. The following special characters are permitted: ! „ # \$ % & ' () * + , - . / : < = > ? @ ^ _ ` § ß
Value list	Code list	As an attachment in the interface
GTIN format	GTIN (EAN)	13 numeric digits with check digit

2.1 Data contents at header level

In the first instance, the information on the data contents at header level refer to all information known on the data supplier. These are followed by comprehensive information on the entire data delivery.

Content	Description	Structure
manufacturer_ID	GLN of the data supplier	Text 13 Permitted characters: 0-9
manufacturer_name	Company name or legal name of the manufacturer	Text 20
manufacturer_abbreviation	Technically required 2-character manufacturer code according to the list of abbreviations for ARGE members	Text 2
manufacturer_GLN	Organizations can use the GLN (Global Location Number) for a global identification of the entire corporate name or business establishment name and of the address.	String 13
manufacturer_DUNS	Organizations can use the D-U-N-S (Data Universal Numbering System) for a global identification of the entire corporate name or business establishment name and of the address.	String 9
catalogue_ID	Clear identification of the catalogue, consisting of participant ID, country code, and catalogue name	Text 35
catalogue_name	Descriptive name of the catalogue, identical with <delivery_name>	Text 35
start_of_validity	The start of validity indicates the date from which the catalogue shall be valid as a whole. Please note: Any start of validity at article level always takes precedence!	Date (DDMMYYYY)
end_of_validity	The start of validity indicates the date up to which the catalogue shall be valid as a whole. Please note: Any end of validity at article level always takes precedence!	Date (DDMMYYYY)
data_delivery_designation	Content description of the data delivery: e.g. 2015 price list	Text 35

3 Basic article data

Basic article data contain all **information on a product**. For better clarity and easy topic-based search, information on specific topics (e.g. product texts, attributes, prices, groups, logistics, media data) have been divided in separate chapters. This division represents **no** hierarchical structure or sorting of information regarding the article master data.

3.1 Article numbers

The clear allocation or identification of data is just as important as their completeness and up-to-dateness. A key element in this is that the article numbers used in the master data have a similar structure to those used in print media (e.g. catalogues or brochures). Therefore, an article number should always correspond to the number printed on the articles without blanks and special characters. If a new numbering system is introduced, it should not contain any blanks or special characters (i.e. only 0-9, A-Z are permitted) or leading zeros.

We distinguish between the following article numbers:

3.1.1 Factory article number

The factory article number is the central key denomination and is assigned to ensure the **clear recognition of an article**. This article number has to be unambiguous across all sub-ranges, catalogues and variants and is assigned ex works by the organization.

Content	Description	Structure
factory_article_number	Unambiguous article number consisting of digits and characters Example: JKS300620112	Text 15

3.1.2 Factory article number catalogue

It is possible to state an additional <factory article number catalogue> as long as it deviates from the actual factory article number with regard to the characters used, character length and character set (e.g. PDF documents). In practice, the **structure of the <factory article number catalogue> can be compared to the factory article number**; however, special characters are used in the relevant print medium.

Content	Description	Structure
factory_article_number_catalogue	Blanks and special characters are possible; character set may deviate from the factory article number. Example: JKS_300/620 112 in the PDF document used	Text 35

3.1.3 Trade article number

Articles may be assigned another article number by the trade for internal administrative purposes. This <trade article number> is **only relevant in the relationship between trade and crafts** and is used there.

Content	Description	Structure
articlenumber	Relevant in the trade/crafts relationship	Text 15

3.1.4 GTIN

The GTIN is the successor to the former EAN and describes an **unambiguous article key in the European area**. Stating the GTIN is an important quality characteristic for the actual products. There are some exceptions in the assortment (cf. Chapter 1.2) where the GTIN is often missing.

Content	Description	Structure
GTIN_EAN	GTIN consisting of 13 characters to identify the article within the catalogue	GTIN format

3.2 Article validities

Information on validities are to be understood as **combined article- and price validities of an article**. The validity information at article level may vary from the information in the header data, which refer to the entire data delivery.

These details are non-binding and may be changed in subsequent data deliveries.

3.2.1 Start of validity

Example: A new article will only be sold from 01/04/2014; start of validity of the entire data delivery is 01/04/2014.

Content	Description	Structure
start_of_validity	Start of validity at article level: precedence over validity at header level. Example: 01042014	Date (DDMMYYYY)

3.2.2 End of validity

Example: An article will expire on 30/06/2014, but the end of validity of the entire data delivery in the header data is 31/12/2014.

Content	Description	Structure
end_of_validity	End of validity at article level: precedence over validity at header level. Example: 30062014	Date (DDMMYYYY)

3.3 Alternative articles, expiring articles, and successor models

Alternative articles are articles that are **similar to the original article** and can be used in its stead. Consequently, alternative articles need to be available in the assortment.

An **expiring article** is an article that **will be deleted from the assortment in the future**. It is assigned an expiration date in the data record. If there is a **successor model** to the expiring article, it is **labelled accordingly**, and the factory article number of the successor model will be required. If necessary, up to three successor models may be given.

Content	Description	Structure
alternative_article	Indication of an article number => reference to an article from the assortment that can be used instead of the required article	Text 15
expiring_article	Labelling: Yes, No, Yes with successor model	Value list
expiring_date	Indication of the expected expiration date if labelled as an expiring article Earliest possible deletion 12 months after expiration date	Date (DDMMYYYY)
expiring_articlenumber	Article number of the successor model which needs to be stated in the data delivery. Indication is relevant if labelled as an expiring article with successor model. Indication of 3 possible successor models max.	Text 15

3.4 Production period

Production periods can be stated for all articles in the assortment. For active articles, the start of production is stated. **If an article expires** and ceases to be produced, stating the end of production makes this article a **<historical product>** (cf. Chapter 11).

Content	Description	Structure
built_start	Start of the production period	Date (DDMMYYYY)
built_end	End of the production period	Date (DDMMYYYY)
construction_year_text	Notes/annotations regarding the years of manufacture	Text 35

3.5 Deep Link

Giving a Deep Link (URL) is a complement and redirects to a relevant webpage of the industrial company where further information on the article may be found. The organization is responsible for the function of the Deep Link. One Deep Link per article can be provided.

Content	Description	Structure
deep_link_url	URL of a website to access further article information. Example: http://www.manufacturer.de/article/articlenumber/4711211	Text 256

3.6 Raw materials

Information on the raw materials of an article describe the **ingredients of a product**. Price-relevant raw materials of a products should be transmitted to the master data server. For each article, several raw materials with further information may be named:

Content	Description	Structure
material	Raw material that the information refers to	Value list
weight_basis	Total weight of the article/product	Decimal number
basis_unit	Weight unit in line with the value list	Value list
proportion_by_weight	Proportion of the raw material in question: e.g. per cent	Decimal number
proportion_unit	Proportion unit of the raw material	Value list
quotation_of_raw_material	Commodity price based on which the price was calculated: in each case related to 100 kilograms of the raw material	Decimal number

3.7 UBA positive list

The **positive list** issued by the Federal Environment Agency (UBA) **refers to metallic materials** used to manufacture products that get in contact with drinking water.

Every article requires a general statement as to whether it is subject to the positive list. If so, an additional statement is required as to whether the requirements of the positive list are fulfilled. Complementary documents may be stored for articles that are both subject to the positive list and fulfil its requirements (cf. Chapter 9.2.1).

Content	Description	Structure
mark_UBA_positive_list	Indication as to whether the article is subject to the UBA positive list	yes/no
mark_UBA_requirement	Indication as to whether the article fulfils the requirements of the UBA positive list	yes/no

3.8 Series

A series brings different products together under a common brand family. Hence, an article may be a part of a defined product series or range and is directly allocated to it.

Content	Description	Structure
series	Name of the product series the article in question belongs to	Text 80

3.9 Model number

The model number consists of a combination of digits and letters and serves to define a **precise version of an article**. For instance, the model series of an article may comprise several articles with different functions and different years of manufacture.

Content	Description	Structure
model	Model number assigned by the industrial company	Text 15

3.10 Energy efficiency class

Energy efficiency is a measuring unit for the energy expenditure required to achieve a specified benefit of a product. The energy labelling of different products serves to support the purchase decision. The label provides **information on the energy efficiency in use** (economic principle). A well-known example of this is the EU energy label for electrical appliances.

Content	Description	Structure
energy_efficiency_class	Indication of an energy efficiency class between A+++ and G in accordance with the EU Directive	Value list

3.11 WELL label

The **WELL label** is a still voluntary classification system used by the valve manufacturers that **classifies the energy consumption** (with a focus on warm water) **of fittings**. The WELL label is also used with flushing systems and accessories.

The classification system can be compared to the energy label for electrical appliances; it differentiates between application in the public and the private sector.

The WELL label may be stored as a complementary document with the article (cf. Chapter 9.2.1).

3.12 Accessories

If one or more articles are available as **accessories to a product from the assortment** of the organization, they are allocated by means of the factory article number. All accessories listed need to be available in the assortment.

Content	Description	Structure
accessories	Factory article number/trade article number of the accessory	String 15
product_labeling	Indication as to whether the accessory is required for using the product, e.g. wash basin mounting bracket	yes/no
amount	Number of accessories allocated to a product	Decimal number

3.13 Control indicators

Control indicators control the general display of an article on the appropriate platforms (e.g. *SHK-Branchenportal*).

For instance, the following **indicators control the display of an article in the shop or the spare parts system** of the portals, facilitating the placement of an order directly with the organization.

Content	Description	Structure
ordering_ability_suppress	Control of the availability for order of an article in the ordering system. Please note: The service <Order> is another prerequisite in the rights structure of the <i>SHK-Branchenportal</i> for an article to become available for order.	yes/no
display_in	Control of the display of the article in the ordering- and spare parts system of the <i>SHK-Branchenportal</i> .	Value list

4 Product texts

As regards content, the texts to be provided that **describe precisely one article or a group of similar articles** can be short texts, long texts and dimension texts.

As an optional feature, additional product texts can be maintained for every article from the assortment. These text types give a comprehensive description of an HVAC industry product across all distribution levels. They provide advantages in the creation and use of texts and are optimized for involved processes.

In the medium term, the text types used so far (Chapters 4.2 thru 4.5) will be replaced by the short article summary, the article summary, the marketing text, and the application note.

4.1 Requirements on character set and formatting

As regards **common product texts**, such as short text 1 and 2, long text and dimension text, the following requirements on the character set apply to all:

- Alphanumeric upper-case and lower-case characters with umlauts and blanks
- Permitted special characters are : ! „ # \$ % & ' () * + , - . / : < = > ? @ ^ _ ` § ß

As regards **optional product texts**, such as short article summary, article summary, marketing text, and application note, **extended requirements on the character set apply** referring to UNICODE:

- U0020 – U007F Latin Basic without control characters
- U00A0 – U00FF Latin-1 Supplement without control characters
- U0100 – U017F Latin Extended-A
- U0370 – U03FF Greek, Coptic
- U0400 – U04FF Cyrillic

The formatted continuous texts, such as article summary, marketing text, and application note are in HTML mode. The following tags can be used:

Paragraph, line break	<p>,
Bold, italics, underlined	, , <i>, <u>
Sorted and unsorted list	, ,
Font sizes (headlines)	<h1>, <h2>, <h3>, <h4>

4.2 Short text 1 and 2

The short text is needed for the description and identification of an article in the entire business process. This does not only apply to first-stage processing, but above all to further use of the short text without revision in downstream systems and e.g. in quotations or invoices.

It provides a **clear, legible, understandable** and **product-relevant limited description of an article**. The short text consists of 80 characters over two lines of 40 characters each. Due to this restriction, the **use of abbreviations according to the ARGE list of abbreviations is permitted**, with the primary objective of guaranteeing good legibility of the texts. The short text does not contain marketing aspects, duplicate texts are to be avoided.

Exception: With spare parts, duplicate short texts are possible, clarity being guaranteed by stating the article number in the short text if necessary.

Content	Description	Structure
short_text_1	40 characters max., observe attribute order	Text 40
short_text_2	40 characters max., logical separation from short text 1 without continuous text or hyphenation, observe attribute order	Text 40
language	Indication of the language the short text was written in	Code list language

4.3 Attribute order of the short texts

Observing the attribute order is relevant to data quality if information can be provided on the attributes in question.

	Text attribute	Comment	Examples ¹
1	Manufacturer	The manufacturer's name at the beginning of the short text is mandatory. The manufacturer is responsible for the presentation. If the manufacturer's name is abbreviated, this abbreviation has to be used consistently. The manufacturer's name has to be abbreviated using two letters; the abbreviations are not subject to the rules of the list of abbreviations. The directory of manufacturer's name abbreviations is kept by the ARGE, abbreviations are to be coordinated with the ARGE.	Friedrich Grohe => FG
2	Product description	To be given in the singular. The product description can be assigned by the supplier at their discretion.	Wash basin mixer
3	Series	To be written in the manufacturer's own style. The adopted style is to be used consistently.	Europlus
4	Model name/ model number	There may be no line break in the model name/model number. For an unambiguous description of spare parts, the article number may be used in the short text.	33155
5	Feature	Technical particularities of the product are stated here.	Electronical
6	Dimensions	<u>Order of dimensions:</u> Sanitary – recommended: L/D x W x H Heating – recommended: H x W x L/D If dimensions are given in millimetres (mm), the unit can be omitted. With all dimensions that are not given in millimetres the unit has to be provided. The decimal character is the comma, without blank. The character for inch is “. Mixed fractions are permitted.	DN15
7	Extended features	Indication of colour, surface, glass type, profile of the product or other features used for differentiation	Chrome

¹ The examples are not connected but represent separate examples of different text attributes.

4.4 Long texts

Long texts describe articles in detail and represent **group texts in terms of content** that can generally be **assigned to a group of similar articles** (e.g. several products from one series). These texts are made available to the end customer too, in quotations or invoices. Long texts are no tender texts; they can at most be a part of such texts. 99 lines of 40 characters each are available for long text maintenance.

Content	Description	Structure
long_text_number	Identification number	Text 8
long_text_line_number	Consecutive line number of the long text 1-99	Integer 9
long_text_line	Text content: 40 characters max. per line	Text 40
language	Indication of the language the long text was written in	Code list language

Consequently, long texts are not maintained on the article. Reference to the related long text is made by means of an unambiguous identification number that is allocated to the article.

Content	Description	Structure
long_text_number	Identification number, reference to the related long text	Text 8

4.5 Dimension texts

Dimension texts are a **product-specific complement**. 99 lines of 40 characters each are available for dimension text maintenance, e.g. to describe special **product features in detail** (extended short text) that do not apply to all products in the group.

Content	Description	Structure
dimension_text_line_number	Consecutive line number of the long text 1-99	Integer 2
dimension_text_line	Text content: 40 characters max. per line	Text 40
language	Indication of the language the dimension text was written in	Code list language

4.6 Short article summary

The short article summary is an **article-identifying, unambiguous description** of a product as unformatted continuous text. This text type is used in all commercial documents and in incoming-goods processes.

Content	Description	Structure
article_short_summary	Unformatted single-line short article summary	Text 256

4.7 Article summary

The article summary is a **comprehensive description of all technical features** of a product. It includes references to standards or safety instructions and information on components or mandatory accessories. The article summary is mainly intended for the user groups of specialized craftsmen and planners.

Content	Description	Structure
article_summary	Formatted product-related continuous text in HTML mode	Text 10000

4.8 Marketing text

The marketing text is a **user-oriented description of an article** as formatted continuous text. It is not intended to be exhaustive and does not generally provide technical details. This text type is for instance used when compiling price lists at the wholesaler's or in information offers directed at the specialist craftsman.

Content	Description	Structure
text_marketing	Formatted marketing-oriented continuous text in HTML mode	Text 10000

4.9 Application note

The application note provides **advice on processing techniques that deviate from standard procedures** (e.g. reference to special tools). This text type is mainly intended for the user groups of wholesalers and specialized crafts businesses.

Content	Description	Structure
application_note	Formatted continuous text with application advice in HTML mode	Text 512

4.10 Language

The language indicates what language the text was written in.

Content	Description	Structure
language	Indication of the language the text was written in	Code list language

5 Attributes

Attributes are used to transmit the **extended characteristics and forms of an article**. When using the attributes, the article has to be referenced by stating the manufacturer's code and the factory article number or the GTIN (EAN).

As a rule, using attributes is optional. The use of attributes requires information on the system, the characteristic and the value. Several attributes can be defined for one article.

Content	Description	Structure
attribute_system	Stating the attribute system that the attribute refers to	Value list
attribute_class	Allocation to an attribute class	Text 35
attribute_name	Unambiguous name/characteristic of the attribute	Text 35
attribute_value_1	Value of the attribute	Text 35
attribute_value_2	Upper value of the attribute if it is an attribute of the RANGE type	Text 35
attribute_unit	Unit of the attribute	Text 35
attribute_value_description	Complementary description of the attribute value	Text 35

5.1 Classification

Using the attributes facilitates product classification in accordance with the **ETIM classification model** (Electrotechnical Information Model). Stating the ETIM class for the commodity groups agreed upon between ARGE, DGH and ZVSHK will be required. For further information on ETIM please go to www.etim-international.com.

Content	Description	Structure
attribute_system	Unambiguous name of the system: ETIM version	Value list
attribute_class	ETIM class IDs	Text 35
attribute_name	Name of the attribute when using the ETIM feature ID	Text 35
attribute_value_1	Value of the attribute when using the ETIM value ID if applicable	Text 35
attribute_value_2	Upper value of the attribute when using ETIM	Text 35
attribute_unit	Unit of the attribute when using the ETIM unit ID	Text 35
attribute_value_description	Complementary description of some attribute values in plain text: e.g. colour indication "polar white", which is not subject to any DIN standard	Text 35

Example of ETIM classification: wash basin

Serial no.	attribute_system	attribute_class	attribute_name	attribute_value_1	attribute_value_2	attribute_unit	attribute_value_description
1	ETIM 7	EC011550	EF002169	EV000572	-	-	-
2	ETIM 7	EC011550	EF001257	EV000154	-	-	-
3	ETIM 7	EC011550	EF000051	EV000396	-	-	-
...							
5	ETIM 7	EC011550	EF020706	1	-	-	-
...							

Serial no.	attribute_system	attribute_class	attribute_name	attribute_value_1	attribute_value_2	attribute_unit	attribute_value_description
10	ETIM 7	EC011550	EF011666	540	543		
...							
15	ETIM 7	EC011550	EF023790	true	-	-	-
...							
38	ETIM 7	EC011550	EF000040	135	-	millimetre (mm)	-

5.2 ErP (Heating Label)

Energy values for composite systems: here, the basis for implementation is the interface documentation issued by the VDZ. They are **transmitted within the attributes** stating the **<ERP x.y> attribute system** from the value list.

5.3 Keywords

Keywords (also search terms, synonyms) generally mean nouns of pivotal importance that allow statements about a text content. Keywords are short and concise customary terms as an alternative to the short summary. They serve to make the search for products in electronic systems easier. They are **transmitted within the attributes** stating the **<INDIV> attribute system** from the value list. Several keywords can be given for one article.

Example for keywords: tray base

Serial no.	attribute_system	attribute_class	attribute_name	attribute_value_1	attribute_value_2	attribute_unit
1	INDIV	-	keyword	tray base	-	-

6 Prices

The following price types have been defined for articles and can be stated:

- **Factory list price:** sales price ex works (industry). A factory list price has to be provided as soon as it is also available in other publications issued by the industrial company.
- **RRP without tax:** Recommended non-binding resale price to the end customer
- **Retail list price:** This price is only relevant in the relationship between trade and crafts and is not displayed in the ARGE systems. An industrial company cannot provide this price to or through the systems of the ARGE because it will not be displayed in the relevant interfaces and software systems.

As a rule, price information is transmitted exclusive of VAT. Any selected price type requires indication of the relevant detailed information such as price value, currency, price basis, and price quantity unit.

Content	Description	Structure
factory_list_price_value	Price information according to different price types	Decimal number
factory_list_price_currency	Currency of the price value	Value list
factory_list_price_basis	Quantity of the article the price refers to; possible values are 1, 10, 100, and 1000	Integer 9
factory_list_price_price_quantity_unit	Quantity unit of the article the price refers to, e.g. piece(s), set, litre, kilogram	Value list

6.1 Price on request

A price on request (POR) for articles of the article types <customization>, <service> or <software> can be stated as long as it is also stated in other publications.

If an article is labelled <price on request>, it is not possible to state further prices.

Content	Description	Structure
price_on_request	Indication as to whether a valid price will only be transmitted on request	yes/no

6.2 Value added tax class

No concrete tax rate is used here; the different tax classes are entered via a value list. One valid VAT class for Germany is stated for each article. Likewise, information on the withholding method and on the reverse charge mechanism can be given.

Content	Description	Structure
value_added_tax	Value added tax class of the article	Value list

7 Groups

All articles are classified in different group structures. **Four group types** have been predefined, with the naming and classifying of the single groups being the organization's responsibility.

7.1 Commodity group

The commodity group assigns the article **to a specified upper group structure (e.g. bathtub, fitting, radiator) based on its intended use**, which ideally corresponds to the table of contents of the print catalogue. This first allocation is relevant for classifying the article under a category. Each defined commodity group is given a group code consisting of 3 characters max., and a descriptive text.

Content	Description	Structure
group_type	Commodity group of the industry (upper, first classification)	Value list
group_number	Commodity group ID (code): e.g. 010	Text 3
group_designation	Plain text for description of the category, e.g. "fittings"	Text 40

Every defined commodity group can be complemented by documents or images (cf. Chapter 0).

An unambiguous identification number (ID) to be maintained on the article provides a reference to the related commodity group.

Content	Description	Structure
commodity_group_ID	Identification number, reference to the related commodity group: the article is assigned to this commodity group	Text 3

7.2 Product group

After categorization under a commodity group, the product group facilitates a **finer classification of the article with regard to e.g. brand-, range- or model names**. The definition of product groups and the classification as well as the allocation of group codes and descriptive texts are chosen by the organization.

Content	Description	Structure
group_type	Product group of the industry (finer classification)	Value list
group_number	Product group ID (code): e.g. 010001	Text 10
group_designation	Plain text for description of the finer classification, e.g. fittings series Produkta	Text 40

Every defined product group can be complemented by documents or images (cf. Chapter 0).

An unambiguous identification number (ID) to be maintained on the article provides a reference to the related product group.

Content	Description	Structure
product_group_ID	Identification number, reference to the related product group: the article is assigned to this product group.	Text 10

7.3 Discount group

The discount group assigns the article to a **condition group** within the 3-level distribution channel. Only general information is to be transmitted, no percentages. The contents of the discounts and the coding are defined by the organization.

Content	Description	Structure
group_type	Discount group of the data supplier (condition group)	Value list
group_number	Discount group ID (code): e.g. RG12	Text 4
group_designation	Plain text for description of the classification, e.g. discount group 12	Text 40

Every defined discount group can be complemented by documents or images (cf. Chapter 0)

An unambiguous identification number (ID) to be maintained on the article provides a reference to the related discount group.

Content	Description	Structure
discount_group_ID	Identification number, reference to the related discount group: the article is assigned to this discount group	Text 4

7.4 Bonus group

Bonus groups allocate the articles to a possible **condition group depending on the purchase quantity** (e.g. payment of bonuses depends on specific purchase quantities). The contents of the bonus groups and the coding are defined by the organization. Only general information is to be transmitted, no percentages.

Content	Description	Structure
group_type	Bonus group of the industry (condition group/purchase quantity)	Value list
group_number	Bonus group ID (code): e.g. BG1	Text 35
group_designation	Plain text for description of the classification, e.g. bonus group 1	Text 40

Every defined bonus group can be complemented by documents or images (cf. Chapter 0).

An unambiguous identification number (ID) to be maintained on the article provides a reference to the related bonus group.

Content	Description	Structure
bonus_group_ID	Identification number, reference to the related bonus group: the article is assigned to this bonus group	Text 35

7.5 Group document allocation

Every group can be complemented by documents or images. It is possible to store several documents per group. At this point, all media types can be allocated, just like on the article (cf. Chapter 9), and also the **additional media type LO for logo**.

Content	Description	Structure
document	Name of the document file (observe file naming convention ²)	Text 35
document_type	Type selection from predefined value list (cf. Chapter 9.1.3 and Chapter 9.2.1); in addition, LO	Value list
image_use	Web image or printed image: only relevant to images	Value list
document_description	Detailed description of the content of the allocated documents	Text 40
document_sort_sequence	Definition of a sorting sequence in case of several documents being allocated to one group	Integer

8 Logistics

Providing logistical data related to the articles is important for all market partners involved and therefore an integral part of the complete data record. This optimizes or even facilitates the planning of routes and calculation of storage space in the trade. Logistical data are **basic details regarding the dimensions and weights** of an article, **minimum order quantities** and **packaging units**.

These data also include information on durability, hazardous goods, bulk goods, and delivery times.

8.1 Net dimensions and -weights

Net dimensions and net weights are basic details and refer to an unpacked article. Data maintenance has to be performed on every dimension, weight and volume of an article in accordance with the value list. Several net dimensions can be given, but each defined dimension can only be used once per article.

Content	Description	Structure
measure_ID	e.g. weight, volume, dimensions of an article	Value list
measure_value	Measurement/weight value: "0" values are not permitted	Decimal number
measure_unit	Unit of the measurement/weight information as per value list	Value list

² cf. Chapter 9

8.2 Basic article

The basic article corresponds to quantity 1 of the price quantity unit.

All articles being calculated with the basic units of piece, pair, set or dozen have to be provided with the dimensions and the weight of the basic article.

The lengths of the sides a, b, and c result from **a (notional) cuboid around the basic article**.

The gross weight has to be greater than or equal to the net weight. **When using bags, the maximum dimensions of the bag** (a, b, c) form the basis of the measurements.

The following dimensions and weights are provided:

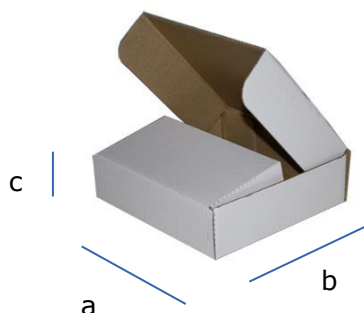
Content	Description	Structure
measure_A	Dimension a of the basic article incl. packaging	Decimal number
measure_unit_A	Measurement unit for dimension a	Value list
measure_B	Dimension b of the basic article incl. packaging	Decimal number
measure_unit_B	Measurement unit for dimension b as per code list	Value list
measure_C	Dimension c of the basic article incl. packaging	Decimal number
measure_unit_C	Measurement unit for dimension c as per code list	Value list
weight	Weight of the basic article	Decimal number
weight_unit	Measurement unit for the weight as per code list	Value list
packaging_quantity	Quantity stating how many packages a basic article consists of, e.g. a shower screen is delivered in 2 boxes (=2 packages)	Integer

If the basic article is generally **individually packed**, the **dimensions and weight have to be stated including packaging**.

Illustration 1: Example tap (calculated per piece, individually packed by default) ⁴



basic article



Dimensions of the basic article in a (notional) cuboid

⁴ cf. Chapter 12 Typical applications

Relevant information for the example “tap”:

- Price unit: piece
- Price basis: 1
- Minimum order quantity: 1
- Minimum order quantity unit: piece
- Dimensions of basic article: Dimensions (a, b, c) of the packaging: 545x192x73 mm
- Weight of basic article: Weight (g) incl. packaging: 2.1 kg
- PU 1: Box, 8 pieces; 575x370x365, weight of the box: 18.15 kg
- PU 2: Box, 16 pieces; 590x780x375, weight of the box: 37.45 kg

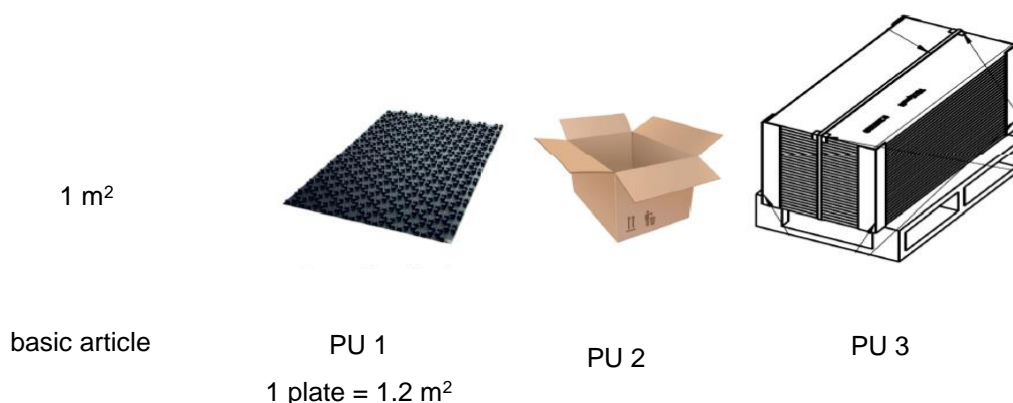
If the **basic article is generally unpacked** or not individually packed, **dimensions and weight have to be stated without packaging**.

Illustration 2: Example screw (calculated per piece, not individually packed by default) ⁴**Relevant information** for the example “screw”:

- Price unit: piece
- Price basis: 1
- Minimum order quantity: 250
- Minimum order quantity unit: piece
- Dimensions of basic article: Dimensions (a, b, c) of the single screw
- Weight of basic article: Weight (g) of the single screw
- PU 1: Box 250 pieces; 64x126x60, weight of the box
- PU 2: Box 4500 pieces; 304x205x198, weight of the box

For articles calculated by length, surface, volume or weight, stating the dimensions and weight of the basic article is not necessary.

⁴ cf. Chapter 12 Typical applications

Illustration 3: Example nub plate (calculated per square metre) ⁴**Relevant information** for the example “nub plate”:

- Price unit: m²
- Price basis: 1
- Minimum order quantity: 9.6
- Minimum order quantity unit: m²
- Dimensions of basic article: irrelevant
- Weight of basic article: irrelevant
- PU 1: plate 1.2 m²; 1440x800x70, weight of the plate
- PU 2: box 9.6 m²; 1510x890x380, weight of the box
- PU 3: pallet 57.6 m²; 1510 x 890 x 2300, weight of the pallet

For article consisting of several packages (number of packages unequal to 1), stating the dimensions and weight is not necessary. At present, the **dimensions of several packages cannot be transmitted**.

Recommendation: Transmission of the total weight of all packages and the dimensions of the notional cuboid around all packages.

8.3 Packaging units

Up to **five different packaging units** can be given for every article. For each packaging unit, the packaging type, the packaging quantity, and the packaging quantity unit are given. For each defined packaging unit, the required dimension- and weight details, and as a rule a separate GTIN, are given. The packaging units have to be given **without gap and in ascending quantity of the article contained therein**, with the quantity and weight getting bigger in ascending order (details re PU 2 need to be greater than those re PU 1, cf. examples).

For articles calculated by length, surface, volume or weight, stating the smallest sales unit (irrespective of the minimum order quantity) as packaging type in PU 1 is required.

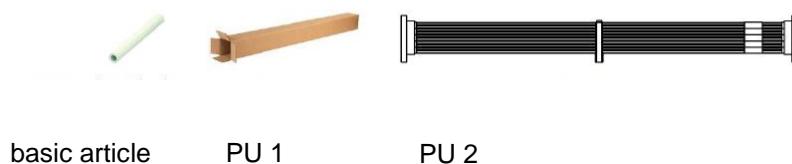
⁴ cf. Chapter 12 Typical applications

Example of a correct display of the packaging units:

Content	PU 1	PU 2	PU 3	PU 4	PU 5
PU: packaging type	CT	CT	PN		
PU: quantity	6	12	240		
PU: GTIN					
Dimension a of the packaging unit	305	605	1210		
Measurement unit a	mm	mm	mm		
Dimension b of the packaging unit	405	405	810		
Measurement unit b	mm	mm	mm		
Dimension c of the packaging unit	105	105	525		
Measurement unit c	mm	mm	mm		
Weight of the packaging unit	6.2	12.4	260		
Weight unit	kg	kg	kg		

Example of an incorrect display of the packaging units:

Content	PU 1	PU 2	PU 3	PU 4	PU 5
PU: packaging type	CT		PN	CT	
PU: quantity	6		240	12	
PU: GTIN					
Dimension a of the packaging unit	305		1210	605	
Measurement unit a	mm		mm	mm	
Dimension b of the packaging unit	405		810	405	
Measurement unit b	mm		mm	mm	
Dimension c of the packaging unit	105		525	105	
Measurement unit c	mm		mm	mm	
Weight of the packaging unit	6.2		260	12.4	
Weight unit	kg		kg	kg	

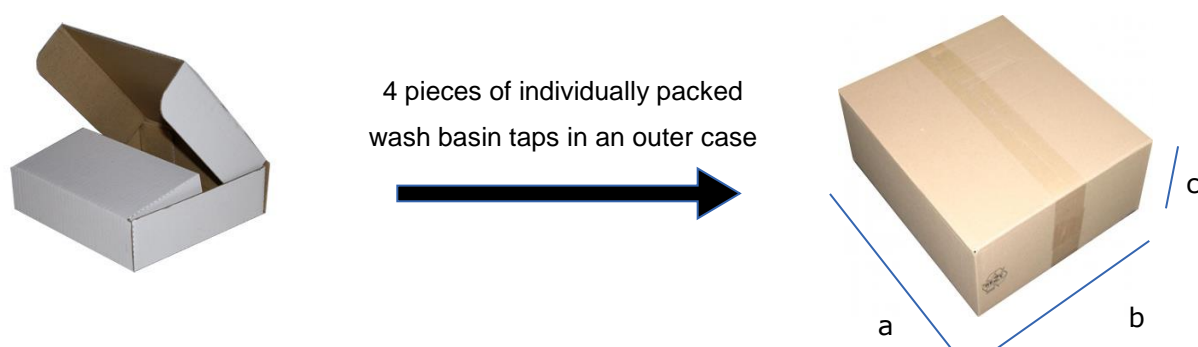
Illustration 4: Example tube (calculated by metres):

Basic article: 1 metre of tube (not supplied by the metre!)

PU 1: box with 1 rod of 5 m

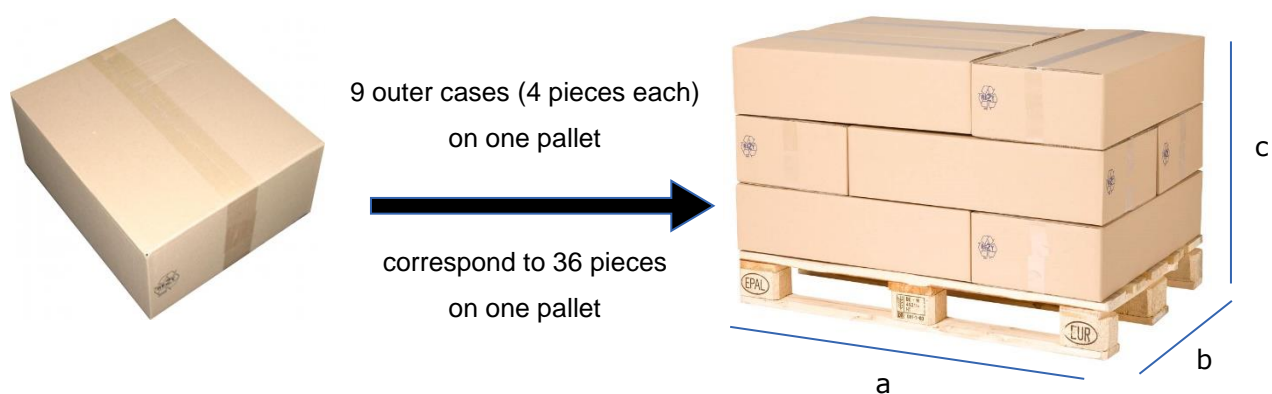
PU 2: box with 20 rods of 5 m each

Content	Description	Structure
PU: packaging type	Definition of the packaging type, e.g. box, basket, ...	Value list
PU: quantity	Number of basic articles contained in the packaging unit	Decimal number
PU: GTIN	Assignment of a new GTIN for the packaging unit. This GTIN is not identical with the GTIN of the article.	GTIN
Dimension a of the packaging unit	Dimension a of the packaging unit	Decimal number
Measurement unit a	Measurement unit of dimension a	Value list
Dimension b of the packaging unit	Dimension b of the packaging unit	Decimal number
Measurement unit b	Measurement unit of dimension b	Value list
Dimension c of the packaging unit	Dimension c of the packaging unit	Decimal number
Measurement unit c	Measurement unit of dimension c	Value list
Weight of the packaging unit	Weight of the packaging unit	Decimal number
Weight unit	Measurement unit of the weight of the packaging unit	Value list

Illustration 5: Example of a packaging unit 1 (PU 1)

PU 1 corresponds to a PU quantity of 4 with the PU quantity unit CT (box).

Illustration 6: Example of a packaging unit 2 (PU 2)



PU 2 corresponds to a PU quantity of 36 with the PU quantity unit PAL (pallet).

8.4 Minimum order quantity

The minimum order quantity of an article is relevant information and contains the smallest quantity of an article that is available for order. The stated **quantity may correspond to the content of packaging unit 1** (cf. Chapter **Fehler! Verweisquelle konnte nicht gefunden werden.**). The quantity units are defined in a value list.

Content	Description	Structure
min_order_quantity	Minimum order quantity: always greater than 0 e.g. quantity/number of pieces (5) or length specifications (2.5)	Decimal number
min_order_unit	Unit of the minimum order quantity, e.g. PCE for piece, MTR for metre	Value list

8.5 Hazardous goods

If an article is classified as hazardous goods, information regarding the UN number, hazard class and transport category is usually required. In the field of the so-called mixed products, hazardous goods may be stated without further additional information.

Content	Description	Structure
hazardous_material_ID	Labelling required if the article is hazardous goods	yes/no
UN_number	Article number of the hazardous goods	String 35
danger_class	Indication of a hazard class: classification in hazard categories	String 35
carriage_category	Important information regarding the transportation of the article	Value list

8.5.1 REACH regulation

Articles and ingredients of articles that are listed as substances of very high concern under REACH have to be labelled in the data delivery. Regulation (EC) No 1907/2006 (REACH regulation) is an EU chemicals regulation that came into force on 1 June 2007. REACH stands for the **R**egistration, **E**valuation, **A**uthorisation and **R**estriction of **C**hemicals. As an EU regulation, REACH is equally and directly applicable in all member states.

Content	Description	Structure
Reach	Labelling is required if an article or ingredient of an article (chemical) is subject to the REACH Regulation as a substance of very high concern.	yes/no
Reach_date	Date of completion of the verification that an article is on the REACH list.	String 35

8.6 Article sets

An article set contains a **list of article numbers** that are combined in a **complete package**. Article sets are consequently composed of the set articles (“sub-articles”) and jointly form the outbound article or a package with a new factory article number (cf. Chapter 1.2 article types). All listed set articles have to exist in the assortment and be separately available for order.

Content	Description	Structure
associated_article	Article number of the associated article. Example: JKS300620112	String 15
amount	Number of associated articles for the article set/package in question, e.g. 5	Decimal number

8.7 Durability

Stating a durability period is useful with certain products, above all if they (partly) lose their function after a certain period of time (e.g. self-adhesive pipe insulation).

This **detail does not provide any information** on possible **warranty claims**, potential temporary storage of an article or legal requirements.

Content	Description	Structure
durability_period	Indication of the period in months 1-99; 99 stands for unlimited durability	Integer

8.8 Standard delivery period

The delivery period is the **non-binding period of time** between order creation and arrival or availability of the goods at the market partner’s partner for a warehouse delivery. This does not apply to special orders and forward orders.

At the wholesalers’ the standard delivery period is used as information for stock management.

Content	Description	Structure
standard_delivery_period	Indication of a period given in workdays (1 week has 5 workdays)	Integer

8.9 Exportable articles

An article is labelled as exportable if it is generally approved for exportation, irrespective of the importing country. Exportable articles require the **indication of a country of origin** and a **commodity number**. As there is no commodity number for services and software and also no country of origin, this information cannot be provided for articles labelled accordingly.

Content	Description	Structure
exportable	Indication as to whether the article is approved for exportation.	yes/no
commodity_number	Information is necessary if the article is exportable : Statistical commodity group number required for customs- (import/export) and Intrastat declarations. Exception: Exportable services and software have no commodity number.	Integer 8
country_of_origin	Optional indication of a country of origin (primarily relevant to export articles): Country of origin = the country where the article was manufactured or the last essential processing step was completed	Value list

9 Media data

Media data related to an article can be transmitted in the form of image data (colour images, line drawings, milieu images) and complementary documents (e.g. installation instructions, data sheets, videos, CAD drawings). Several images can be stored for one article.

The **file naming convention for image- and document files limits** the file name **to 35 characters max.** incl. dot and file extension. The permitted characters are alphanumeric including underscore and hyphen, with precisely one dot before the file extension. The file name may not contain any umlauts, special characters, blanks or further dots.

The file name can be upper and lower case; for technical reasons, all will be converted to lower case after processing.

Structure and sequence of the media file name:

Digit	Content
1 and 2	2-character manufacturer code according to the list of abbreviations for ARGE members
3 and 4	Media type, cf. Chapter 9.1.3 and 9.2.1
5 thru 31	27 characters for self-chosen file name (shorter is possible). Recommendation: Use digit 5 for image usage (d for printed image, w for web image).
32	. dot before the file extension
33 thru 35	File extension

Example of a correct file name: VAB_Armatur_apha123.jpg

9.1 Images

All articles and spare parts from the assortment are allocated an image or a substitute image if necessary, which, as a rule, has to be marked in the data record as a substitute. Several images can be stored with one article.

With regard to the usage of image files, there is a distinction between web images and print images.

The following information on image files are required for allocating them to the article:

Content	Description	Structure
document	Name of the document file (observe file naming convention)	Text 35
document_type	Type of document (image), cf. Chapter 9.1.3	Value list
image_use	Web image or print image	Value list
substitute_ID	Indication as to whether the article depicted corresponds to the article or serves as a substitute	yes/no
document_description	Detailed description of the contents of documents: Example: 5 installation instructions for an article without differentiation; differentiation is possible in connection with the sorting sequence.	Text 40
document_sort_sequence	Pre-setting a sequence in case of several documents (incl. images) related to the article for optimal usability in the target systems	Integer

9.1.1 Web images

Web images are primarily needed for **presenting the article in web applications**, such as displaying it in the shop and in the article search of the *SHK-Branchenportal* as well as in the in-house systems of the market partners. For this reason, the size of web images is limited to a maximum width of 640 pixels and a maximum height of 480 pixels at an **optimal resolution of 72 dpi minimum**.

Graphic formats that can be used for web images are JPEG and PNG.

9.1.2 Print images

Print images are **used in print media** and have a width of approx. 1500 pixels and a height of approx. 1500 Pixel at a size of 100x100 mm. Print image files are provided either in the RGB or in the CMYK colour space.

Graphic formats that can be used for print images are limited to JPEG, PNG, EPS and TIFF.

9.1.3 Media types for images

The following media types are available for both web images and print images as per a value list:

Content (examples)	Description	Media type
Colour images	Cropped image (black & white or colour) of an article (without background)	B_ S_
Line drawings	Image of an article consisting of lines	U_ V_
Milieu	Image of an article within an application scenario	MI
Detail image	View of an article in detail	DT
LifeStyle	Visual representation of a lifestyle	LS
KeyVisual	Visual product representation as an effective eye-catcher	KV
Logo	Attention: Logos as media types are only permitted with groups, cf. Chapter 0.	LO

9.2 Documents

All other media data that do not correspond to the <image data> file type, are documents by definition.

Documents associated to an article can be **complementary and informative** or **mandatory**, e.g. with hazardous goods in the form of a HAZMAT data sheet. Several documents of one document type can be stored with one article.

Complementary documents can be provided to the master data server in standard formats.

Content	Description	Structure
document	Name of the document file (observe file naming convention ³)	Text 35
document_type	Type of document, cf. Chapter 9.2.1	Value list
document_description	Detailed description of the contents of documents: Example: 5 installation instructions (all type MA) for an article without differentiation; differentiation is possible in connection with the sorting sequence.	Text 40
document_sort_sequence	Pre-setting a sequence in case of several documents of the same type for optimal usability in the target systems	Integer

9.2.1 Media types for documents

All documents of the different media types can be provided to the master data server in **current data formats**.

The following media types are available for documents:

Content	Description	Media type
CAD drawings	2-D or 3-D depictions of the article	2D, 2F, 2S, 3C, 3B, 3A
Animations	Animated depictions of the article	AN
Video	Film about the article	VI
Datasheet	Technical details of the article	DB
HAZMAT datasheet	Information on hazardous goods	GG
Instructions	Operating instructions for the article	IS
Installation instructions	Installation instructions for craftsmen	MA
Technical information	Technical details of the article	TI
Maintenance instructions	Information on the maintenance of the article	WA
Technical guide	Information on planning and tendering	PA
Brochures	Sales brochures	PP
Approval	DIN information on the article	ZL
Training slide	Training material for installation and use	SF

³ cf. Chapter 9

Content	Description	Media type
Declaration of performance	Construction Products Regulation	LE
Care instructions	Information on product care	PF
ErP label	Energy label as energy labelling	EL
Wiring diagram	Wiring diagram for installation	SB
Technical drawing	Graphic description of the functions and characteristics of a product	TZ
UBA positive list	List of the substances and materials used in articles suitable for contact with drinking water	UP
WELL label	WELL label as energy labelling	WL

9.3 Exploded drawing

An **exploded drawing** (also exploded view, exploded assembly drawing) is a type of depiction with drawing and graphics that **shows a complex object disassembled into its individual parts** (in perspective, if appropriate). The individual parts or components of a product are depicted spatially separated and pulled apart from one another.

Several documents of the exploded-drawing media type can be allocated to one article. Labelling as a substitute or differentiation between web image and print image is not possible.

Content	Description	Structure
document	Name of the document file (observe file naming convention ⁴)	Text 35
document_type	Type of document: exploded drawing	X_

⁴ cf. Chapter 9

10 Spare parts lists

A spare part is recognizable by the article type chosen (cf. Chapter 1.2). Within one data delivery, spare parts lists can be defined and populated with spare parts.

If a **spare parts list for an article** is given, the **allocation of an exploded drawing** (with all existing components being numbered) will prove useful. The position numbers in the spare parts list correspond to those in the exploded drawing to make sure that spare parts needed in practice can be identified and found. Spare parts lists can also be maintained for historical products (cf. Chapter 11) if spare parts for these products are still available for order.

Content	Label	Structure	ETA	ETT
spare_parts_ID	Identification number (ID) of the spare parts list	Text 35	X	X
line_number	Consecutive line number of the spare parts list	Integer 3	X	X
line_type	ETA = spare parts list line is a complete line set ETT = spare parts list line is descriptive text that structures the list	Value list	X	X
position_number	Indication of the position number in accordance with the associated exploded drawing	Text 10	X	X
spare_part	Factory article number of the spare part	Text 15	X	
price_group	Indication of a price group	Text 5	X	
text	Descriptive text re the spare part or re content-related structure of the spare parts list	Text 35	X	X
year_of_construction_start	Important information, especially with historical products	Date	X	
article_reference_type	A = active article HP = historical product	Value list	X	
language	Indication of the language the text was written in	Code list language		

Reference to an associated spare parts list is made by means of an unambiguous identification number (ID) allocated to the article.

Content	Description	Structure
spare_parts_ID	Identification number, Reference to an associated spare parts list: the article will be associated to this spare parts list.	Text 35

11 Historical products

A <historical product> is an article that is not part of the assortment any more but still kept in this category so that spare parts lists with spare parts for this product that are still available for order can be maintained. **A historical product is marked by stating a production period.**

Production lines often contain redundant factory article numbers of current and historical products. The desired article or spare part can only be identified and found with a combination of the factory article number of the historical product and the start (or end) of a year of construction.

Content	Label	Structure
historical_product	Factory article number of the historical product	Text 15
year_of_construction_start	Start of the production period	Date
year_of_construction_end	End of the production period	Date
year_of_construction_text	Notes/annotations regarding the years of manufacture/production periods.	Text 35
short_text_1	Structure of short text 1 (cf. Chapter 4.2)	Text 40
short_text_2	Structure of short text 2 (cf. Chapter 4.2)	Text 40
GTIN_EAN	GTIN (cf. Chapter 3.1.4)	GTIN format
commodity_group_ID	Reference to the commodity group (cf. Chapter Fehler! Verweisquelle konnte nicht gefunden werden.)	Text 3
product_group_ID	Reference to the product group (cf. Chapter 7.2)	Text 10
spare_parts_list_number	Reference to the defined spare parts list that has to be included in the data delivery (cf. Chapter 10).	Text 35

11.1 Allocation of documents to historical products

Just like with active articles, complementary documents or images can also be allocated to the historical products. The pivotal document to be associated is the exploded drawing for potential spare parts orders. For clear identification, historical products also require the start of the production period.

Content	Description	Structure
year_of_construction_start	Start of the production period	Date
document	Name of the document file (observe file naming convention)	Text 35
document_type	Type of document (cf. Chapter 9.3)	Value list
image_Use	Web image/print image: indication only relevant with images	Value list
substitute_ID	Indication as to whether the article depicted corresponds to the article or serves as a substitute	yes/no
document_description	Detailed description of the contents of documents	Text 40
document_sort_sequence	Pre-setting a sequence in case of several documents (incl. images) related to the article for optimal usability in the target systems	Integer

12 Typical applications

Further examples of the provision of logistics data regarding the basic article and packaging units:

Tube: bar commodity, invoiced by the metre			PU 1	PU 2
Price unit	m	Packaging type	bar	box
Price basis	1	Quantity	5	100
Minimum order quantity	100	Dimensions in mm	40x50x5000	400x100x5000
Minimum order quantity unit	m	Weight in kg	2.72	54.6
Dimensions/weight of basic article	irrelevant			

Tube: coil commodity, invoiced by the metre			PU 1	PU 2
Price unit	m	Packaging type	coil (roll)	pallet
Price basis	1	Quantity	50	600
Minimum order quantity	50	Dimensions in mm	700x700x150	700x700x1340
Minimum order quantity unit	m	Weight in kg	14.775	186.5
Dimensions/weight of basic article	irrelevant			

Nub plate, invoiced by the square metre		PU 1	PU 2	
Price unit	m²	Packaging type	plate	box
Price basis	1	Quantity	1.2	9.6
Minimum order quantity	9,6	Dimensions in mm	1440x800x70	1500x850x600
Minimum order quantity unit	m²	Weight in kg	2.5	20.224
Dimensions/weight of basic article	irrelevant			

Liquid, invoiced by the litre		PU 1		PU 2
Price unit	L	Packaging type	jerrican	box
Price basis	1	Quantity	5	20
Minimum order quantity	5	Dimensions in mm	250x200x100	260x410x210
Minimum order quantity unit	L	Weight in kg		
Dimensions/weight of basic article	irrelevant			

Putty, invoiced by the kilogram		PU 1	PU 2
Price unit	kg	Packaging type	sack (bag) box
Price basis	1	Quantity	5 30
Minimum order quantity	5	Dimensions in mm	100x100x200 650x150x250
Minimum order quantity unit	kg	Weight in kg	5.05 30.74
Dimensions/weight of basic article	irrelevant		

Tube, invoiced by the bar		PU 1	
Price unit	pcs	Packaging type	box
Price basis	1	Quantity	20
Minimum order quantity	1	Dimensions in mm	400x100x5000
Minimum order quantity unit	pcs	Weight in kg	54.6
Dimensions of basic article in mm	40x50x5000		
Weight of basic article in kg	2.72		

Tube, invoiced by the coil		PU 1	
Price unit	pcs	Packaging type	pallet
Price basis	1	Quantity	12
Minimum order quantity	1	Dimensions in mm	700x700x1340
Minimum order quantity unit	pcs	Weight in kg	186.5
Dimensions of basic article in mm	700x700x150		
Weight of basic article in kg	14.775		

Nub plate, invoiced by the plate		PU 1	PU 2
Price unit	pcs	Packaging type	box pallet
Price basis	1	Quantity	8 80
Minimum order quantity	8	Dimensions in mm	1500x850x600 1515x890x2300
Minimum order quantity unit	pcs	Weight in kg	20.224 212.5
Dimensions of basic article in mm	1440x800x70		
Weight of basic article in kg	2.5		

Liquid, invoiced by the jerrican		PU 1	
Price unit	pcs	Packaging type	box
Price basis	1	Quantity	4
Minimum order quantity	1	Dimensions in mm	260x410x210
Minimum order quantity unit	pcs	Weight in kg	20.5
Dimensions of basic article in mm	250x200x100		
Weight of basic article in kg	5.1		

Putty, invoiced by the sack/bag		PU 1	
Price unit	pcs	Packaging type	box
Price basis	1	Quantity	6
Minimum order quantity	1	Dimensions in mm	650x150x250
Minimum order quantity unit	pcs	Weight in kg	30,74
Dimensions of basic article in mm	100x100x200		
Weight of basic article in kg	5.05		

Transition sleeve Dim 16		PU 1	PU 2	PU 3	
Price unit	pcs	Packaging type	bag	box	pallet
Price basis	1	Quantity	10	100	12800
Minimum order quantity	10	Dimensions in mm	240x60x27	200x150x190	1200x800x1000
Minimum order quantity unit	pcs	Weight in kg	0.722	7.421	967.8
Dimensions of basic article in mm	42x26x26				
Weight of basic article in kg	0.069				

Transition sleeve Dim 63			PU 1	PU 2
Price unit	pcs	Packaging type	box	pallet
Price basis	1	Quantity	5	640
Minimum order quantity	1	Dimensions in mm	190x240x200	1200x800x1000
Minimum order quantity unit	pcs	Weight in kg	4.811	634.57
Dimensions of basic article in mm	93x70x70			
Weight of basic article in kg	0.937			

Grease separator	
Price unit	pcs
Price basis	1
Minimum order quantity	1
Minimum order quantity unit	pcs
Dimensions of basic article in mm	2100x800x2014
Weight of basic article in kg	160

Tap		PU 1	PU 2
Price unit	pcs	Packaging type	box
Price basis	1	Quantity	8
Minimum order quantity	1	Dimensions in mm	575x370x365
Minimum order quantity unit	pcs	Weight in kg	18.15
Dimensions of basic article in mm	545x192x73		37.45 kg
Weight of basic article in kg	2.1		

Panel screw		PU 1	PU 2
Price unit	pcs	Packaging type	box
Price basis	1	Quantity	250
Minimum order quantity	250	Dimensions in mm	64x126x60
Minimum order quantity unit	pcs	Weight in kg	0.51
Dimensions of basic article in mm	35x4x4		9.23
Weight of basic article in kg	0.002		