



Guideline for goods labelling with GS1 128 by Emmi Suppliers

Guideline for application of the GS1 specifications

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1 Introduction

Emmi is operating the supply chain by barcodes. The goods receive will be done by reading the GS1 128 to identify item, quantity and lot etc. and to transmit for the inventory management to the ERP-System. By this reason it is mandatory that all information in the barcode are correct encoded.

The following document explains the rules for the logistical labelling of the purchased goods along the GS1 rules by Emmi. The documentation would help the suppliers, the purchasers and the goods receive employees to understand and follow the Emmi rules of labelling.

2 GS1 specifications and contacts

For help and specific questions to the GS1 system please contact your GS1 member organisation.

2.1 GS1 specifications

- General GS1 specifications, particularly
 - section 3 Application Identifier definitions
 - section 5 Data carriers
 - section 6 Symbol placement guidelines, 6.8 Placement rules labelling on distribution units
- GS1 Europe; GS1 in Europe Logistic Label
- GS1 Schweiz; GS1 logistic-label
- GS1 Schweiz; GS1-128 Symbology

2.2 GS1 contacts

GS1 Schweiz
Monbijoustrasse 69
3007 Bern

Phone: + 41 (0) 58 800 70 00
eMail: mail@gs1.ch
Web; <http://www.gs1.ch>



3 Basics to GS1 128

3.1 Data elements in the barcode for Logistic Units to be encoded

Based on the GS1 specifications follow the rules below

- In the GS1 128 data string for Goods delivered to Emmi the identifiers AI 91 – 99 are strictly not allowed.
- The identifier below according to dating AI(11) / AI(15) / AI(17) as well as AI(13) Pack date, may only be used in consultation with Emmi purchasing.

AI	Denomination	Field	Description
00	SSCC	n18	Serial Shipping Container Code stands worldwide for the unique identification of the Logistic Unit in the supply chain.
02	GTIN of the units on the LU	n14	GTIN 13 with prefix 0 or 9 of the TU on the logistic unit.
10	Lot number	an..20	Unique code for identification of Lot/Batch of the items.
11	Production date (YYMMDD)	n6	Date on which the material would be produced.
15	Best before (YYMMDD)	n6	Date of consumption of the item. View of quality.
17	Expiry date (YYMMDD)	n6	Date of last consumption. View of food safety.
37	Count of TU	n..8	Count of the TU loaded on a logistic unit. Only allowed in combination of the AI02.
310n	Net Weight	n6	Declaration of the net weight of the traded items as random weighted units. Combination with AI01 and/or AI02, depending of the referred units.
311n	Length in meter	n6	Declaration of the total of meters as random length units.

n = numeric, an = alpha-numeric, n..8 = field up to 8digits, number = field length



3.2 Data elements in the barcode for Trade Units to be encoded

Based on the GS1 specifications follow the rules below

- In the GS1 128 data string for Goods delivered to Emmi the identifiers AI 91 – 99 are strictly not allowed.
- The identifier below according to dating AI(11) / AI(15) / AI(17) as well as AI(13) Pack date, may only be used in consultation with Emmi purchasing.

AI	Denomination	Field	Description
01	GTIN of the Unit/Item	n14	GTIN 13 with prefix 0 or 9 of the Unit/Item.
10	Lot number	an..20	Unique code for identification of Lot/Batch of the items.
11	Production date (YYMMDD)	n6	Date on which the material would be produced.
15	Best before (YYMMDD)	n6	Date of consumption of the item. View of quality.
17	Expiry date (YYMMDD)	n6	Date of last consumption. View of food safety.
30	Count of Units/Items	n..8	Count of the CU loaded. Only allowed in combination of the AI01.
310n	Net Weight	n6	Declaration of the net weight of the traded items as random weighted units.
311n	Length in meter	n6	Declaration of the meters as random length units.

n = numeric, an = alpha-numeric, n..8 = field up to 8digits, number = field length



4 Label design

- The sequence of the AI may not be hard coded!
- It would be an advantage to encode the lotcode at the end of the barcode, because the field length is variable on to 20 alpha-numeric digits. If you encode in this sequence it will speed up the reading process.
- It is mandatory that all encoded information in the barcode to print in the text area as human readable


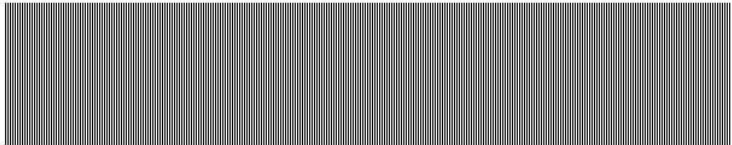
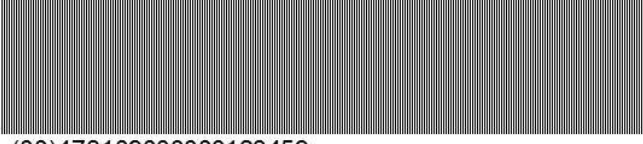
4.1 Recommendations to the encryption

- **Character set.** All numeric information should encoded in character C. This allows numeric data to be encoded as two data digits per symbol character. e.g AI(00), AI(01), AI(02), AI(15), AI(310n), AI(311n), AI(315n), AI(320n)
All alpha-numeric information should encoded in character B. e.g. AI(10), Lot-No. that information includes often letters.
- **Variable field length.** The AI(30) and AI(37) have a field length up to 8. We recommend the length to cut of 4 and set after the last digit a FNC1 character.
- **Durability information.** The AI(15) and AI(17) or others are to encrypt as YYMMDD. In the human readable section as DDMMYY.
- **Weight.** The weight of a Logistic-Unit, gros-weight, would not be encrypted in the GS1 128. The gros-weight is only for info for the load of carrier.
The net-weight of random weighted TU should be encrypted in the GS1 128 as AI(3103) for kilogram or AI(3203) for pound.




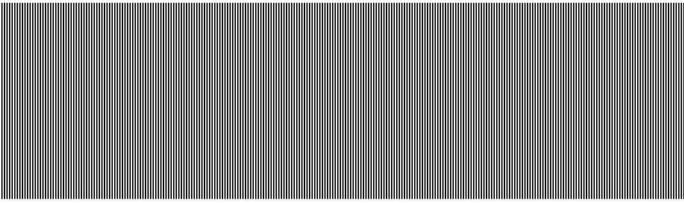
4.2 Example of the pallet label

- Recommended format A5; 210mm x 148mm

text human readable	Sample Ltd. www.sampler.com 	mandatory - Company Identification + Logo - Item description + GTIN - Count of loaded Units - Lot No. - Best before / Expiry date - Net Weight, if random weighted item - Gros Weight as information for loading Trucks														
	Item description Drink XY 4x5x230ml GTIN 07610000123458 <table border="0"> <tr> <td>Count</td> <td>Lot No.</td> <td>Best before:</td> <td>(Net-Weight)</td> </tr> <tr> <td>128</td> <td>1234567A</td> <td>dd.mm.yy or</td> <td>(325,333kg)</td> </tr> <tr> <td></td> <td></td> <td>Expiry date:</td> <td>Gross Weight</td> </tr> <tr> <td></td> <td></td> <td>dd.mm.yy</td> <td>345kg</td> </tr> </table>		Count	Lot No.	Best before:	(Net-Weight)	128	1234567A	dd.mm.yy or	(325,333kg)			Expiry date:	Gross Weight		
Count	Lot No.	Best before:	(Net-Weight)													
128	1234567A	dd.mm.yy or	(325,333kg)													
		Expiry date:	Gross Weight													
		dd.mm.yy	345kg													
Goods receiver	Emmi Schweiz AG Milchstrasse 9 3072 Ostermundigen	Delivery date 17.04.2014 Storage: less than + 5°C	optional - Adress of the Goods receiver - delivery date - storage conditions													
Barcodes + HRI	SSCC 476109000000123459  (02)07610000123458(15)yymmdd(37)128(10)1234567A  (00)476109000000123459	mandatory -SSCC as HRI -AI 02 + 14digit GTIN - AI 15 + best before or - AI 17 + Expiry date - AI 37 + Count of loaded Units - AI 10 + Lot No. - AI 00 + SSCC - AI 3103 + Net Weight, if random weighted item														

4.3 Example of the Trade Unit Label

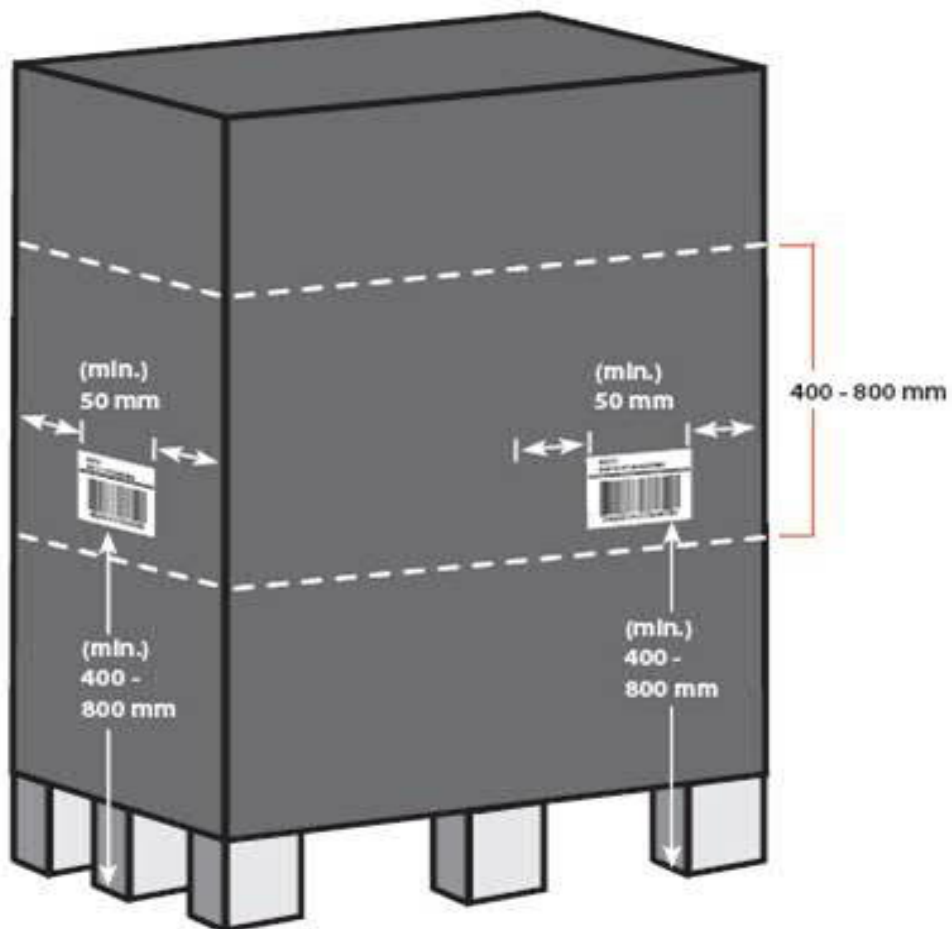
- Recommended format A6; 105mm x 148mm
- Label format smaller than A7; 74mm x 105mm should not be applied

text human readable	Sample Ltd. www.sampler.com 	Barcode + HRI	 (01)07610900123457(15)yyymmdd(30)25 (10)1234567A
	Item description EmCafLatMacch 4x5x230ml Item No. 1151123 GTIN 07610900123457 Best before: dd.mm.yy Count Lot No. 25 1234567A Storage: less than + 5°C (Net-Weight) (23.500kg)		
		mandatory - Company Identification + Logo - Item description + GTIN - Count of CU - Lot No. - Best before / Expiry date - Net Weight, if random weighted item optional - storage conditions	
		mandatory - AI 01 + 14digit GTIN - AI 15 + Best before or - AI 17 + Expiry date - AI 30 + Count of CU - AI 10 + Lot No. - AI 3103 + Net Weight, if random weighted item	

5 Positioning of labels at logistic units

2 labels per LU; 1 on the small side and 1 on the wide side. Right adjusted, 5cm of the verge.

5.1 Homogenous logistic units



5.2 Mixed logistic units

- Logistic units with one or more different items and/or lot codes. Example A .The items and/or lots must be clearly separated.
- Each Trade Unit must have a label with GS1 128. Example B.
- Each Logistic Unit must be labelled with a SSCC for identification. Example C.

Examples of labelling:

