

Standard for identifying and labelling building materials

Version 1.2 • 05.10.2010



Introduction

This document has been produced as part of the Standardisation project. The document makes recommendations for uniform identification and labelling of F-packs (consumer units), D-packs (trading units) and T-packs (pallets) in the building material sector in Norway. The purpose of this concept is to provide the basis for the efficient movement of goods and information in the value chain for building materials. This simplifies identification of products in the information flow, labelling by the producer/supplier, despatch by transporter/haulier and goods reception at the wholesaler/shop.

The labelling concept described in this document being implemented in the building materials sector is dependant on procedures for exchanging all the necessary basic data between the players in the value chain being in place.

This document requires that the packing levels F-pack, D-pack and T-pack are defined for the products. F-pack is characterised as the unit which the consumer purchases from shops selling building materials. The D-pack and T-pack are covered by the definition “outer packaging”. These are logistical units which are used for consignments in the value chain.

The individual product levels are identified by a GTIN (Global Trade Item Number). It is required that all products in the building materials sector are assigned their own GTIN and if possible labelled with a bar code with a GTIN. This document describes the GTIN in more detail, how it is put together and the rules for changing the GTIN. This document also makes a recommendation as to how the various packaging levels should be labelled. When this applies to the labelling concept it covers both product information and transport information.

This document distinguishes between three types of goods – standard goods, timber and goods produced to order (not standard goods).



Updates

Version	Date	Chapter	Changes/Updates	Approved by
1.2	1.9.10	Introduction	Minor changes in language expressions	HSH
1.2	1.9.10	4. Timber	New rules for using GTIN in identification of timber packages	Treindustrien

Content

1	Packaging levels for building materials	5
2	Identification and barcode labelling - general	7
	Identification of products – F-pack, D-pack and T-pack	7
	Rules for changing GTIN	8
	Identification of transport units (packages)	10
3	Product labelling of standard building materials	11
	Labelling of F-pak	11
	Labelling of D-pak	12
	Labelling of T-pak	16
4	Timber	21
5	Goods produced to order	24
6	Labelling of transport information	25
Appendix 1		
	Barcode labelling with GS1-128	29

1. Packaging levels for building materials

Building materials are split into the following packaging levels:

F-pack

Consumer unit, the unit which is purchased by the consumer and which is either scanned at the shop's check-out (POS) or scanned at other delivery points in the building materials shop (timber warehouse, cold warehouse, outside warehouse). F-pack is also often described as the smallest sellable unit. The F-pack can also come in single or multiple packages.



D-pack

Trading units, the unit (carton) which is ordered by the shop from a wholesaler or supplier and which contains several F-packs. There are also some special variants of the D-pack:

- Multipack carton. A multipack carton is defined as a unit which contains several D-packs. A multipack carton is also an D-pack.
- Display unit. A display unit contains one or several types of F-packs. A display unit is defined as an D-pack.



T-pack

Transport packaging (for example, pallet), the unit which is transported between the players in the value chain. A T-pack most often contains several D-packs, but in some instances may only contain F-packs.



Packaging levels for building materials

F-pack



T-pack



Only F-pack



2. Identification and barcode labelling – general

Identification of products – F-pack, D-pack and T-pack

In the building materials sector products must be identified by a GTIN (Global Trade Item Number). The GTIN is a global numbering system which ensures that there is unique identification of products. A GTIN can have up to 14 figures. All the packing levels – F-pack, D-pack and T-pack – must have a unique GTIN. The following GTIN variants are found:

GTIN 8	Used on small products (F-pack)
GTIN 12	Used in the USA and Canada (F-pack, D-pack and T-pack)
GTIN 13	Used on F-pack, D-pack and T-pack
GTIN 14	Used on D-pack and T-pack. Not on F-pack

Samples barcodes



Chains and shops receive and sell products from a range of suppliers, both national and international and must therefore be able to handle all types of GTIN. For F-packs GTIN 13, GTIN 12 or GTIN 8 are used. GTIN 13 is most common. For D-pack and T-pack (outer packaging) all types of GTIN can be used, i.e. GTIN 14, GTIN 13, GTIN 12 or GTIN 8 (uncommon). GTIN 13 and GTIN 14 are most common on outer packaging.

For suppliers who have to number and label their products we recommend using GTIN 13. This applies to all packaging levels, i.e. F-pack, D-pack and T-pack. For further information on the composition and structure of GTIN, please refer to

- [GS1 Guide to Numbering and Labelling of GTIN](#)
- [GS1 The Outer Packaging Guide](#)

which can be obtained by contacting GS1 Norway or which can be downloaded electronically from GS1 Norway's internet site www.gs1.no

Rules for changing GTIN

If changes are made to an existing product the question often arises of whether the product can be assigned a new GTIN or the existing GTIN number can be retained.

In general if the content of a product changes (net weight or the number of units the product contains), the product must be assigned a new GTIN. If the design or price is changed the existing GTIN is retained.

Identification and barcode labelling – general

Barcode labelling of products

In general the GS1 system offers the following three barcode symbols for barcode labelling of GTIN on F-packs, D-packs and T-packs:

1. The EAN/UPC symbol
2. The ITF 14 symbol
3. The GS1-128 symbol

For suppliers who have to barcode label GTIN on their products the following is recommended:



	EAN/UPC	ITF-14	GS1-128
GTIN F-pack	Recommended		
GTIN D-pack	Recommended	for uneven surfaces	If there are several pieces of information
GTIN T-pack	Recommended	for uneven surfaces	If there are several pieces of information
GTIN Timber of variable length			Used within building materials

For more information please refer to [GS1 The Outer Packaging Guide](#)

The EAN/UPC symbol

The EAN/UPC symbol consists of the symbols EAN-8, UPC-A (USA and Canada) and EAN-13. For suppliers who have to barcode label the GTIN-13 number the EAN-13 symbol is used. We recommend that the EAN-13 symbol is used on all levels of packaging, i.e. F-pack, D-pack and T-pack. Very small products (F-pack) are numbered with GTIN-8 and barcode labelled with the EAN-8 symbol.

The EAN-13 symbol with GTIN-13



Identification and barcode labelling – general

The ITF-14 symbol

The ITF symbol can only be used on D-packs and T-packs (outer packaging). Normally the ITF symbol is used where the EAN/UPC symbol does not give a satisfactory reading. This may be the case if the surface is uneven (for example corrugated cardboard). Note that the ITF symbol contains 14 figures. For a GTIN-13 a 0 must therefore be used at the start of the number when it is barcode marked with an ITF-14 symbol.



The GS1-128 symbol

The GS1-128 symbol makes it possible to barcode several pieces of information in the same barcode.

In the building materials sector the GS1-128 symbol is used for timber of variable length. Both the GTIN and length in cm are barcoded (more on this in Chap. 4 Timber).

But GS1-128 can also be used for standard building materials if there is a need to label several pieces of information in addition to GTIN, such as for example production date, batch/lot number and similar. Please note that in the GS1-128 symbol 14 figures are assigned for GTIN. For a GTIN-13 a 0 must therefore be added at the beginning of the number when it is to be barcoded with a GS1-128 symbol.



Quality of barcode symbols


It is a requirement that the quality of barcode symbols used in the building materials sector (EAN/UPC, ITF and GS1-128) fulfil "Grade C" print quality according to the ISO/IEC 15416 standard as a minimum. It is assumed that the barcode symbol is legible at all stages in the value chain and for the entire lifetime of the product, i.e. as long as the products are on sale.

Identification and barcode labelling – general

Identification of transport units (packages)

In the building materials sector transport units (packages) are identified by an SSCC code (Serial Shipping Container Code). The SSCC is a global numbering system which ensures unique identification of transport units. The SSCC has a fixed length of 18 figures. SSCC codes are barcoded with GS1-128.

Every single transport unit must have its own unique SSCC code. The SSCC code is used by hauliers in Norway for the unique identification of freight. See more about transport labelling in Chap. 6

<p>SENDER'S ADDRESS</p> 
<p>RECIPIENT'S ADDRESS</p>
<p>TRANSPORT INFO Gross weight: 600 kg Buyer's ref.: XXX334 SSCC: 37070123000000120/</p>
 <p>(001 37070123000000120</p>

3. Product labelling of standard building materials

Labelling of F-packs

The following information must be used when labelling F-packs:

GTIN - Global Trade Item Number

F-packs must be numbered with a GTIN. This applies to all products, even if it is not possible in practice to barcode the product.

Product text

The product's product text must appear in clear text on the F-pack's product label. The product text must be based on the product text which is registered in NOBB and consists of product name, properties (manufacturer, type and dimensions) and possibly the text of the product text. If the F-pack is a product which can be ordered the product text labelled on the F-pack must be identical to the product texts on the order confirmation, packing note and invoice.

Brand owner

The name of the brand owner must appear in clear text on either the label or the packaging.

Practical guidelines linked to the labelling of F-packs

Label on F-packs – size, design and positioning

The product information can either be printed on a label which is placed on the packaging or printed straight onto the packaging.

As the shape and size of F-packs varies greatly the size and design of the label can also vary.

The positioning of the label must be viewed in association with the positioning of the barcode symbol. Please refer [GS1 Guide to Numbering and Labelling with GTIN](#).

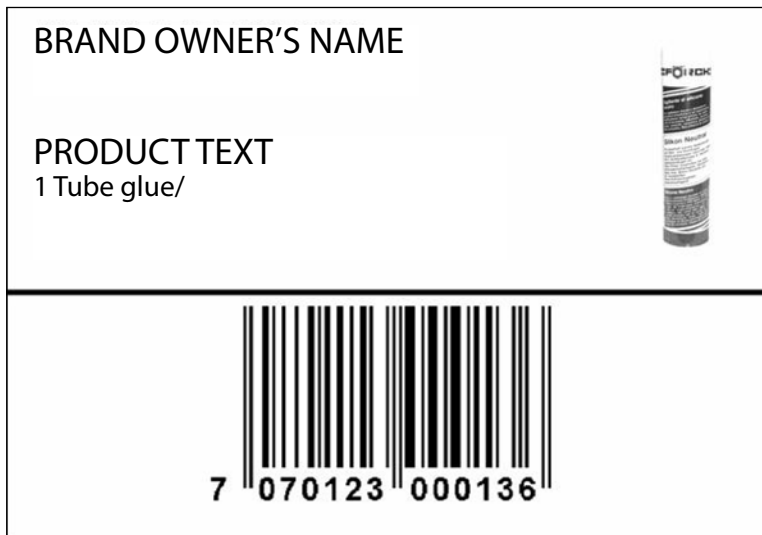
The barcode symbol on F-packs – size, positioning and quality

The EAN-13 symbol must be used when barcode labelling F-packs. The exception to this is for products which are so small that it is not possible to use an EAN-13 symbol. A GTIN-8 number and an EAN-8 barcode symbol must then be used.

Regarding the size and positioning of the barcode symbol please refer to [GS1 Guide to Numbering and Labelling with GTIN](#)

Product labelling of standard building materials

Example of a GS1 product label for F-packs with an EAN/UPC symbol



Product labelling of standard building materials

Labelling of D-packs

GTIN - Global Trade Item Number

D-packs must be numbered with a GTIN. It is recommended that a GTIN-13 is used, but a GTIN-14 may be used if desired.

Product text

The product's product text must appear in clear text on the D-pack's product label. The product text must be based on the product text which is registered in NOBB and consists of product name, properties (manufacturer, type and dimension) and possibly brand. The product text on the D-pack must be identical to the product texts on the order confirmation, packing note and invoice.

Brand owner

The name of the brand owner must appear in clear text on either the label or packaging.

Additional product information – optional

The supplier's item number may be labelled in clear text.

Batch or lot no. This is a number which is generated by the manufacturer and which is used to achieve full traceability in the value chain in terms of the production and packaging of the product. The batch or lot number may be labelled both in clear text and with a GS1-128 barcode symbol.

Date. If desirable, the production date, packing date and best-before date may be labelled both in clear text and with a GS1-128 barcode symbol.

Practical guidelines linked to the labelling of D-packs

Label on D-packs – size, design and positioning

The product information may either be printed on a label stuck to the packaging or printed straight onto the packaging.

One product label on an D-pack is sufficient. It is recommended that the label is positioned on one of the D-pack's vertical sides and that all the D-pack labels are oriented towards the same side on which the T-pack label is positioned (consistent orientation).



Product labelling of standard building materials

As the shape and size of D-packs varies greatly the size and shape of the label may also vary.

The positioning of the label must be viewed in association with the positioning of the barcode symbol. Please refer to [GS1 The Outer Packaging Guide](#).

The barcode symbol on D-packs – size and positioning

An D-pack must be labelled with one of the following barcode symbols:

- The EAN-13 symbol – recommended
- The ITF-14 symbol – for uneven surfaces, for example corrugated cardboard
- The GS1-128 symbol – if more information than just the GTIN is included in the barcode symbol

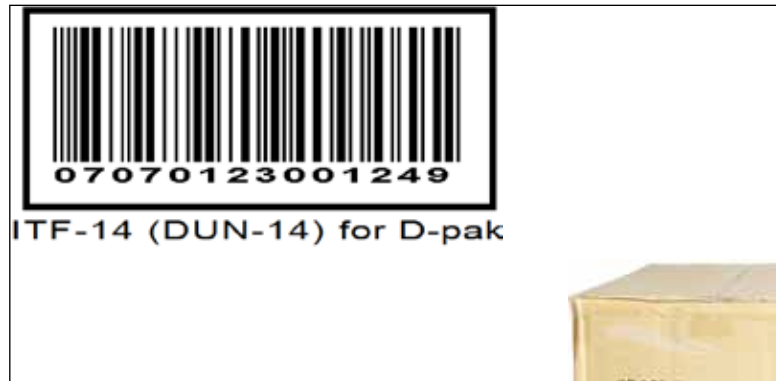
If only the GTIN is to be labelled in barcode form on the packaging the EAN-13 symbol is recommended. The ITF-14 symbol is used for uneven surfaces such as for example corrugated cardboard. If more information than the GTIN has to be barcode labelled, for example batch or lot no., and/or the best-before date, the GS1-128 symbol must be used. Regarding the size and positioning of these barcode symbols, please refer to [GS1 The Outer Packaging Guide](#)

Example of GS1 product label for D-pack with EAN/UPC barcode symbol



Product labelling of standard building materials

Example of GS1 product label for D-pak with ITF-14 barcode symbol



Example of GS1 product label for D-pak with GS1-128 barcode symbol



Product labelling of standard building materials

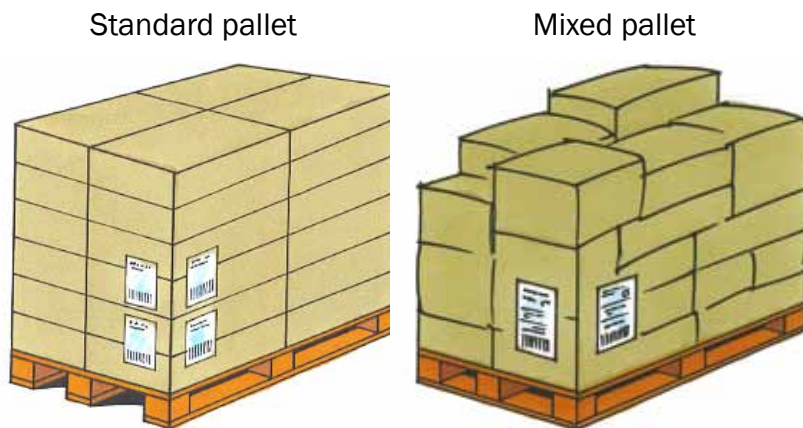
Labelling of T-pack

In this specification we distinguish between two different types of T-pack, depending on the contents of the unit.

Standard T-pack. T-pack which contains the same product (same GTIN) with a fixed number of D-packs and where labelling of unequivocal product information on the T-pack is possible.

T-pack with various products (Mixed pallet). This is a unit which contains various products and where the labelling of unequivocal product information on the T-pack is not possible. For this type of T-pack it is only possible to label with transport information. (see CHAP. 6)

An example in which the T-pack is a pallet is shown here



When labelling standard T-packs the following information must be used:

GTIN - Global Trade Item Number

T-packs must be numbered with a GTIN. Using GTIN-13 is recommended, but GTIN-14 may be used if desired.

Product text

The product's product text must appear in clear text on the T-pack's product label. The product text must be based on the product text which is registered in NOBB and consists of product name, properties (manufacturer, type and dimension) and possibly the text of the brand label. The product text which is labelled on the T-pack must be identical with the product texts on the order confirmation, packing note and invoice.

Product labelling of standard building materials

Brand owner

The name of the brand owner must appear in clear text on either the label or the packaging.

Additional product information – optional

The supplier's item number may be labelled in clear text.

Batch or lot no. This is a number which is generated by the producer and which is used to achieve full traceability in the value chain in relation to the production and packaging of the product. Batch or lot number may be labelled both in clear text and with a GS1-128 barcode symbol.

Date. If desirable the production date, packing date and best-before date may be labelled both in clear text and with a GS1-128 barcode symbol.

Gross weight (in whole kg) must (should on Mixed pallet) be labelled in clear text on every individual T-pack. Gross weight means the weight of the products, packaging and load bearer (pallet).

Maximum stacking weight (in whole kg) may be labelled in clear text.

Temperature requirements must be labelled only in clear text if the product has temperature requirements.

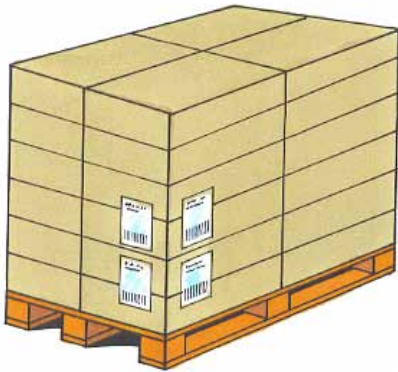
Product labelling of standard building materials

Practical guidelines linked to the labelling of standard T-packs

The label on T-packs – size, design and positioning

The product information is oriented on a label which is placed on the packaging.

In general 1 product label on a T-pack is sufficient. But if the T-pack is a pallet it is recommended that the pallet is labelled with 2 labels



As the shape and size of T-packs may vary the size and design of labels may also vary. But we recommend one of the following formats:

- A5 (148 x 210 mm)
- A6 (105 x 148 mm)

The positioning of the label must be viewed in association with the positioning of the barcode symbol. See GS1 The Outer Packaging Guide.

The barcode symbol on T-packs – size, positioning and quality

T-packs must be labelled with one of the following barcode symbols:

- The EAN-13 symbol – recommended
- The ITF-14 symbol – for uneven surfaces, for example corrugated cardboard
- The GS1-128 symbol if more information than just the GTIN is included in the barcode symbol

If only the GTIN is to be labelled in barcode form on the packaging the EAN-13 symbol is recommended. This assumes use of the GTIN-13 number. If the T-pack is numbered with a GTIN-14, either the ITF-symbol or GS1-128 must be used. The ITF-14 symbol is used for uneven surfaces such as for example corrugated cardboard. If more information than the GTIN, such as for example SSCC code, batch or lot no. and/or best-before date has to be barcode labelled, the GS1-128 symbol must be used. Regarding the size and positioning of these barcode symbols, please refer to GS1 The Outer Packaging Guide..

Product labelling of standard building materials

Example of GS1 product label for standard pallets with GTIN for T-packs labelled with EAN/UPC



Example of GS1 product label for standard pallet with GTIN for T-pack and labelled with ITF-14



Product labelling of standard building materials

Example of GS1 product label for standard pallet with GTIN for T-pack and labelled with GS1-128

<p>BRAND OWNER</p> <p>Product text Paint 24x6x1 litre Buyer's reference: XXX334</p>	
<p>GTIN: 7070012300149 Batch/Lot: KK12345</p> <p>Best before: 07. Oct 2008</p>	
<div style="text-align: center;">  <p>(01) 07070012300149 (15) 081007</p>  <p>(10) KK12345</p> </div>	

4. Timber

This chapter deals with timber of variable length. Timber of fixed length must follow the same principles as standard building materials in terms of the definition of packaging levels (F-pack, D-pack and T-pack), identification by GTIN and labelling of product information (see Chapter 3).

Timber of variable length is currently labelled with a GS1-128 with the following information:

- Product text (clear text)
- Name of brand owner (clear text)
- GTIN for the product (clear text and barcode)
- Length of product (clear text and barcode)

Packaging levels for timber of variable length

The following packaging levels are defined:

- Plank, list, etc. – F-pack
- Bundle – D-pack
- Pack – T-pack
- Multipack – T-pack

The individual planks, lists, etc. are measured in running metres. For bundles, packs and multipacks the contents varies, i.e. the number of running metres varies between different producers and between different parts of the country. For timber of varying length it is recommended that the same logic is used for the same packaging levels as for standard building materials, i.e. F-Pack, D-pack and T-pack. The current descriptions may certainly be retained.

The use of GTIN for identifying the various packaging levels for timber of variable length

The various packaging levels for timber must be identified with a unique GTIN. This means that the different packaging levels must have their own unique GTIN in the same way as standard building materials. This contributes to more simple and more exact identification and registration in NOBB and contributes to simpler routines for purchasing and logistics.

For the so-called "standard assortment" of variable length timber products in NOBB, the organization "Treindustrien" has defined a GTIN number on every package which is orderable (Plank, list, etc. - F-pack • Bundle - D-pack • Pack - T-pack and Multipack - T-pack.) These GTIN numbers are to be used in EDI order and in order response messages. The actual manufacturing party or "price setting party" has to define his own GTIN number for the pricing unit "running meter". The last mentioned GTIN number shall be used in the EDI-messages Despatch advice and Invoice.

Timber

Labelling of timber of variable length

When labelling timber of variable length the following information must be used:

GTIN - Global Trade Item Number

Timber must be numbered and labelled with a GTIN in clear text and barcoded form. It is recommended that GTIN-13 is used. Only GTIN for F-pack is used in labelling of timber independent of package level. Timber must be barcoded labelled with the GS1-128-symbol.

Product text

The product's product text must appear on the product label in clear text. The product text must be based on the product text which is registered in NOBB and consists of product name, properties (manufacturer, type and dimensions) and possibly brand-name text. The product text which is labelled on timber must be identical to the product texts on the order confirmation, packing note and invoice.

Brand owner

The name of the product owner must appear in clear text on either the label or packaging.

Length

Timber must be labelled with length in clear text and barcoded form. The unit of measurement for timber of variable length is always running metres with two decimal places.

Practical guidelines linked to the labelling of timber

The label on timber – size, design and positioning

The product information is printed on a label which is placed on the product, bundle or package. One product label on the individual package is sufficient. As the form and shape of the products varies the size and design of the label may also vary.

It is recommended that the label is positioned on one of the ends of the product (not the middle).

Timber

The barcode symbol on timber – size, positioning and quality

Timber of variable length must be barcoded with the GS1-128 symbol. For further details, see Appendix 1.

Labelling of variable length sold by the metre



5. Goods produced to order

Goods produced to order means goods produced to an order/commission from the customer and which are not standard goods kept in stock.

The customer's order number

When labelling goods produced to order the customer's order number must identify the order. The customer's order number must be labelled on the finished product in clear text and barcoded form with GS1-128. In addition, every single transport unit must be labelled with a standard transport label.

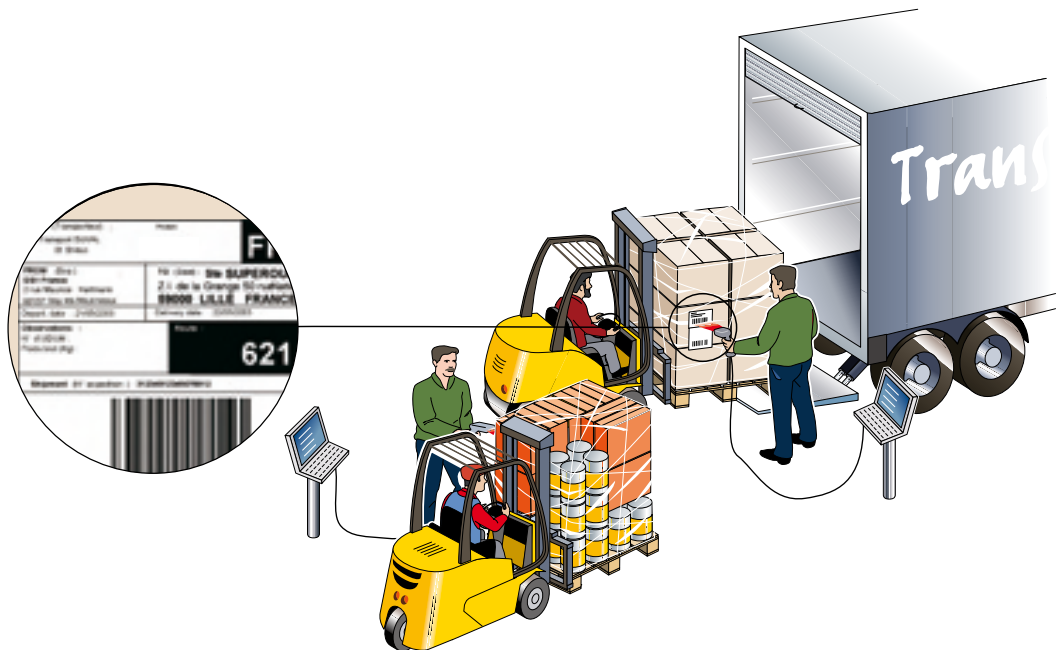
This is most simply resolved by each individual transport unit (package) being labelled with a transport label which also contains the customer's order number.

For further details regarding the marking of labels and barcodes see the next chapter, Labelling of transport information.

SENDER INFO
RECIPIENT INFO
PRODUCT INFO Commission/Order No.: 123KKT234 SSCC: 37070123000000120
 (4 0 0) 1 2 3 K K T 2 3 4
 (0 0) 3 7 0 7 0 1 2 3 0 0 0 0 0 0 1 2 0



6. Labelling of transport information



This chapter covers the labelling of transport information for building materials.

Transport units in the building materials sector

A transport unit means the physical unit (package) which is transported between the sender and recipient and which must be labelled with its own transport label. In practice all packaging levels of building materials, i.e. F-Packs, D-packs and T-packs should be able to act as transport units. But the most usual transport unit is the T-pack.

Labelling of transport units

For labelling transport units in the building materials sector the general labelling concept for freight which is used by hauliers in Norway is used. See GS1 The Transport Guide.

Transport units must be labelled with the following information:

SSCC-code

The SSCC code is an 18-figure GS1 number which gives unique identification of each individual T-pack. The SSCC code (package number) is barcode labelled with GS1-128 (AI 00) and is usually labelled on the transport label on the T-pack. But if desired the SSCC code may be labelled on the product label on the T-pack. The SSCC code must be labelled on each individual T-pack in clear text and with a barcode. For more information on the SSCC code, see GS1 The Outer Packaging Guide.

Please note that if both a product and transport label is used the SSCC code may be labelled on both labels, provided that exactly the same number is used.

Labelling of transport information

Transport labels for pallets consisting of customer packed units (Mixed pallets)

Transport label for pallet made of customerpacked units

The customer packed unit is marked with a transport label with the following information:

- Manufacturer is stated as the sender
- Reciever is stated as the final delivery address.
It is recommended to state the distribution storage in the via-field when the pallet is split or cross-docked.
- On this particular label there is a field for transport information. This is information which the buyer sends to the manufacturer and which the manufacturer prints on the label at the customer packed unit.

Name, address, etc., of sender

The transport unit must be labelled in clear text with the sender's name, street address, post code and postal address in clear text.

Recipient's name, address, etc.

The transport unit must be labelled in clear text with the goods recipient's name, street address, postcode and postal address (delivery address) in clear text.

When sending via groupage terminal:

Name, address, etc., of groupage terminal. The transport unit must be labelled in clear text with the groupage terminal's name, street address, postcode and postal address. This information must appear in the "via" field.

Buyer's reference

The transport unit may be labelled in clear text with the buyer's reference number. Please note that if the customer's commission/order number is stated, this may be barcode labelled with GS1-128 by using AI 400.

Gross weight (in whole kg) must be labelled in clear text on every individual transport unit. Gross weight means the weight of the products, packaging and load bearer (pallet). If the T-pack bears a product label it is sufficient for the gross weight to be stated on one of the labels

Labelling of transport information

Examples of GS1 transport label

<p>SENDER'S ADDRESS</p> 
<p>RECIPIENT'S ADDRESS</p>
<p>TRANSPORT INFO</p> <p>Gross weight: 600 kg Buyer's ref.: XXX334</p> <p>SSCC: 370701230000000120</p>
 <p>(001 370701230000000120</p>

<p>SENDER'S ADDRESS</p> 
<p>VIA</p> <p>E.g. Terminal/wholesaler</p>
<p>RECIPIENT'S ADDRESS</p>
<p>Gross weight: 600 kg Buyer's ref.: XXX334</p>
<p>SSCC: 370701230000000120</p>  <p>(001 370701230000000120</p>

Labelling of transport information

The transport unit – design, size and quality

Regarding the design of the label, all the information stated above must be printed on the label. Please refer to GS1 The Transport Guide regarding the positioning of information, type sizes, etc.

The following recommendation applies to the size of the transport label:

- The width of the label must be 105 mm or 148 mm
- The height of the label may vary

Current formats are:

A5 (148 mm x 210 mm)

A6 (105 mm x 148 mm)

105 mm x 192 mm

Positioning of labels on transport units

All transport units must bear at least one transport label. If the transport unit is a standard F-Pack, D-pack or T-pack it must also bear a product label. For pallets the general minimum requirement is that the pallet must carry both labels on two sides, more specifically the short side and the right-hand long side (seen from the short side). The product and transport label must be on the same sides.

When several labels are used on the same side of the pallet the labels must be positioned under each other. The label which contains the SSCC code is positioned lowest. If the label contains several barcodes the barcode with the SSCC must be written on the lowest line of the barcodes. It is recommended that the SSCC code appears alone on the line.

The label shall be positioned so that the lower part of the lowest barcode must be a minimum of 400 mm above floor level and so that the upper part of the highest barcode must be a maximum of 800 mm above floor level. The label must also be positioned at least 50 mm from the vertical side. For pallets less than 400 mm tall the labels must be positioned as high as possible.

If all the information is known when the unit is labelled and there is room on the label all the information (i.e. both the product and transport label) may appear on one label.

Miscellaneous information

All the information (AI) must only appear once on the product and transport label. In practice this means that the same information can neither be repeated on the same label nor that the same information may appear on several labels on the unit (pallet). Exceptions are the SSCC code, which is permitted on both labels, provided that precisely the same number is used.

The barcode symbol on the transport label – size, positioning and quality

All transport labels must be marked with the GS1-128 symbol. For more information see GS1 The Transport Guide

Appendix 1

Barcode labelling of GTIN with the GS1-128 symbol

All types of GTIN may be barcode labelled with the GS1-128 symbol. Please note that for GTIN a fixed length of 14 figures has been assigned in the GS1-128 symbol. For a GTIN-13 a 0 must therefore be added at the start of the number when it is to be barcode labelled with a GS1-128 symbol. The GTIN-13 is inserted in the GS1-128 barcode symbol as follows.

The table below shows examples of various information and the use of AIs for labelling product information on D-packs with the GS1-128 symbol:

AI (Applikation identifikator)

Information	AI	Format
GTIN for R-pak	AI (01)	(n2 + n14)
Batch or lot number	AI (10)	(n2 + an..20)
Production date	AI (11)	(n2 + n6)
Packing date	AI (13)	(n2 + n6)
Best-before-date	AI (15)	(n2 + n6)

n - numeric

an - alfanumeric

When the GS1-128 symbol is used, the following applies:

- The same information (AI) must only appear once per label
- The size factor of the barcode is in the range 25 to 94% of the nominal size
- The minimum height of the barcode is 13 mm
- Minimum 5 mm height for clear text under the barcode symbol

It is assumed that the barcode symbols are legible at all stages of the value chain and for all the product's lifetime, i.e. as long as the products are on sale.

Appendix 1

Barcode labelling of T-packs with the GS1-128 symbol

The table below shows examples of various information and the use of AIs for labelling product information on T-packs with the GS1-128 symbol:

Information	AI	Format
GTIN for T-pak	AI (01)	(n2 + n14)
GTIN for D-pak within the pallet + number of D-packs	AI (02) + AI (37)	(n2 + n14) + (n...8)
Batch or lot number	AI (10)	(n2 + an..20)
Production date	AI (11)	(n2 + n6)
Packing date	AI (13)	(n2 + n6)
Best-before-date	AI (15)	(n2 + n6)

n - numeric

an - alphanumeric

Please pay special attention to the following:

- The size factor is in the range 50% to 94% of the nominal size.
- The minimum height of the barcode is 32 mm.
- When labelling GTIN (AI 01 and AI 02) 14 figures must always be used. When the GTIN has 13 figures an initial 0 must be inserted (e.g. 07038010000065).
- When barcode labelling in GS1-128 a separating character called Function Code 1 (FNC1) is used between the individual pieces of information. This applies apart from the AIs which have predefined fixed lengths. The following AIs in this document have predefined lengths - AI 00, AI 01, AI 02, AI 15. It is recommended having the AIs which are to be followed by FNC1 at the end of the barcode as the FNC1 code may then be omitted.
- It is important that the requirements for white-space margins are complied with. At a size factor of 50% the right-hand and left-hand white-space margins are 5 mm and with a size factor of 94% the white-space margins are 9.4 mm.

Appendix 1

Barcode labelling of timber of variable length with the GS1-128 symbol

The table below shows examples of various pieces of information and the use of AIs for labelling product information for timber with GS1-128 symbol logic:

AI (Applikation identifier)

Information	AI	Format
GTIN for the product (F-pack)	AI (01)	(n2 + n14)
Length of product to 2 decimal places	AI (3112)	(n4 + n6)

n - numeric

an - alfanumeric

When the GS1-128 symbol is used the following applies:

- The same information (AI) must only appear once per label
- The size factor of the barcode lies in the range 25 to 94% of nominal size
- The minimum height of the barcode is 13 mm
- Minimum height of 5 mm of clear text under the barcode symbol

Barcode labelling of products produced to order with the GS1-128 symbol

Overview of labelling of goods produced to order with GS1-128 symbol logic:

Information	AI	Format
Customer's commission/order number	AI (400)	(n3 + an...30)
SSCC number (see Chap. 6 for further information)	AI (00)	(n2 + n18)

n - numeric

an - alfanumeric

Appendix 1

Barcode labelling of transport units with the GS1-128 symbol

Overview for labelling goods produced to order with GS1-128 symbol logic:

Information	AI	Format
SSCC number (see Chap. 6 for more information)	AI (00)	(n2 + n18)
Postcode for Norway	AI (420)	(n3 + an...20)
International postcode	AI (421)	(n3 + n3 + an...9)
Despatch number (Bill of carriage)	AI (401)	(n3 + n17)

For further information please refer to [Chapter 6 Labelling of transport information](#).



HSH – The Federation of Norwegian
Commercial and Service Enterprises
P.O.Box 2900 Solli
N-0230 Oslo
Phone +47 22 54 17 00
Email sidsel.eide@hsh-org.no
www.hsh-org.no

HSH is Norway's leading business and employer organisation within the private services provision sector. HSH organises businesses within the retail, agency, import and wholesale trades, travel, publishing, IT, consultancy services, temporary employment services, accounting and financial services, catering and various types of personal services. HSH's membership also embraces private sector health and care businesses, education, cultural and charitable organisations. 14,085 businesses with more than 183,500 employees are members of HSH.



GS1 Norway
Haslevangen 15, N-0579 Oslo
P.O.Box 454 Økern, N-0513 Oslo
Phone +47 22 97 13 20
Email: firmapost@gs1.no
www.gs1.no



Norsk Byggjeneste
Stensberggt. 27, N-0161 Oslo
P.O.Box 6823 St. Olavs Plass,
N-0130 Oslo
Phone +47 23 11 44 00
Email: firmapost@byggjeneste.no
www.byggjeneste.no