

# Produce Industry IT Standards Association

## PIITSA Guidelines

### Carton End Label

## CONTENTS

INTRODUCTION	2
1 GENERAL	2
1.1 Ink Specification	2
2 COMPLETING CARTON END PANEL INFORMATION	2
2.1 Carton End Panel Information	2
2.3 Carton Label Sizes and Material Properties	3
3 BARCODE STANDARD	5
3.1 Compliance with the EAN 128 Standard	5
3.2 Barcode Human Readable Information Requirements	6
3.3 Determining the Material Number	6
3.4 Determining the Product Line Code	6
3.5 Calculating the Check Digit	7
Appendix 1: Use of the Master Data	7
Appendix 2: Calculating the ISO pack date code	9
Appendix 3: Calculating Pack Date Codes For Year 2003	<b>Error! Bookmark not defined.</b>

Date	Version	Author	Changes Applied
June 03	Draft	John Bartley	

---

## INTRODUCTION

This document provides some common industry guidelines associated with Carton End Labelling and should allow for existing requirements for export pack labelling requirements, e.g PEO.OAR.

Export pack identification must be clear and legible to ensure that the correct information is available throughout the entire logistics chain to allow effective product traceability.

---

## 1 GENERAL

### 1.1 Ink Specification

- All print must be in black ink.
- Ink used in all printers must be non toxic and compatible with food products.
- Ink must remain run free under conditions of high humidity, and in some case, minimal exposure to water.

## 2 COMPLETING CARTON END PANEL INFORMATION

### 2.1 Carton End Panel Information

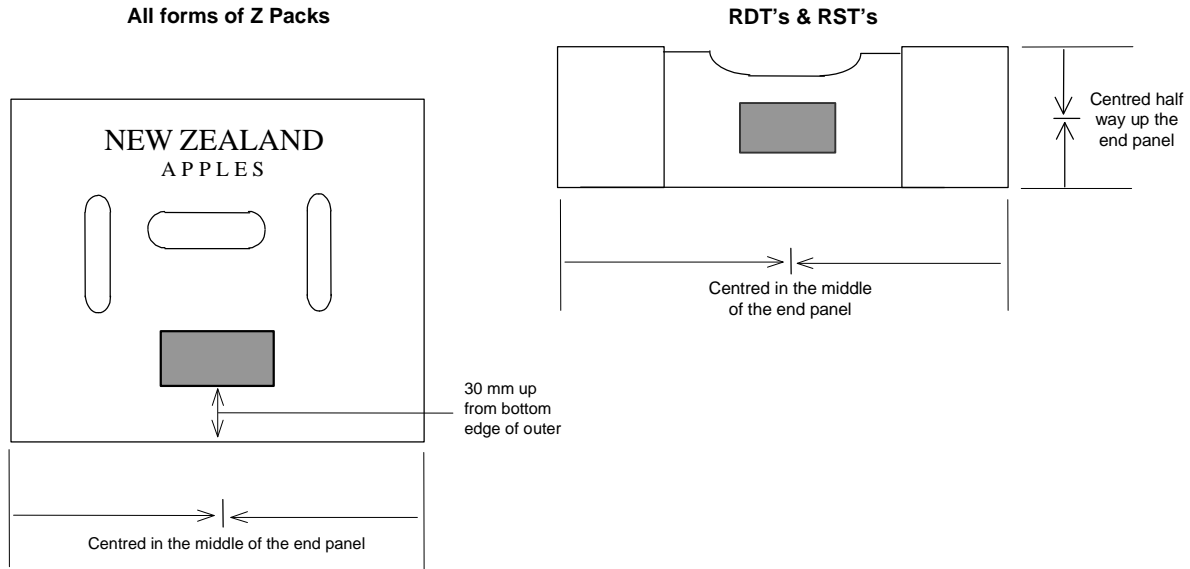
This guideline details the following information on the carton end panels of all export cartons:

- **Variety Name and Variety Code**  
The full variety name, and trademark including symbols ® and ™ where applicable, printed on the end panel.
- **Grade**  
The grade as per the exporter requirements.
- **Count**  
The count (ie. number of pieces of fruit in the pack) must be printed on each carton, not the size of the fruit.
- **Barcode and Human Readable Information**  
Bar-coding and human readable information requirements are detailed in part 3 “Barcode Standard” of this section of the Packing Folder.
- **Production Site Number**  
The registered MAF RPIN number of the Production Site to be printed on the end panel including Market Registration (if appropriate) and Block Number. Eg. R1234 T AA
- **Pack Date Code**  
The date of packing must be printed on the end panel. This is shown as an ISO date. Refer Appendix 2 for calculation of ISO pack date codes.

### 2.2 Placement of Carton Labels On End Panels

Carton labels positions details in Figure 2.2 for the various pack types.

Figure 2.2: Placement of Carton Labels on End Panels



2.3 Carton Label Sizes and Material Properties

Figure 2.3: Common Carton Label Size Options (*drawings not to scale*)

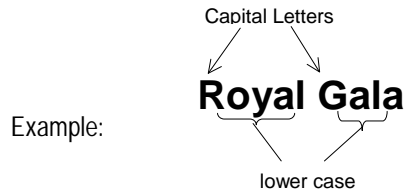


Table 2.3: Carton Label Material Properties

Component	Properties
Paper type	High speed thermal direct face stock. Paper required to meet coolstore conditions and recycling statutes and regulations in all major markets.
Adhesive	Should adhere to T cartons for minimum period of 6 months when subjected to the following conditions: <ul style="list-style-type: none"> <li>• Temperature range: -1.5°C to 40°C</li> <li>• Relative Humidity range: 10% to 98%</li> </ul>
Shelf Life	18 months to 2 years when stored in dry conditions and stored away from direct sunlight.

## 2.4 Print Text Recommendation

- All text must be printed using a text type from the Helvetica or Arial group and printed in bold.
- All words should be printed in "Title Case" (ie. The first letter of each word is always a Capital and the remaining letters lower case).



- The requirements for text size and placement of information on carton labels are detailed in Figure: 2.4a and 2.4 b.

Figure 2.4a: Barcode Placement on Carton Label

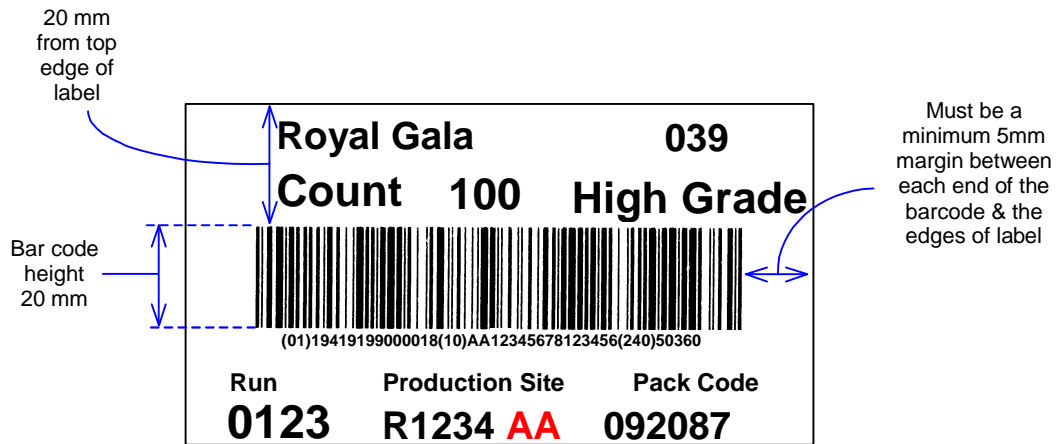


Figure 2.4b: Text Size and Placement of Information on Carton Labels

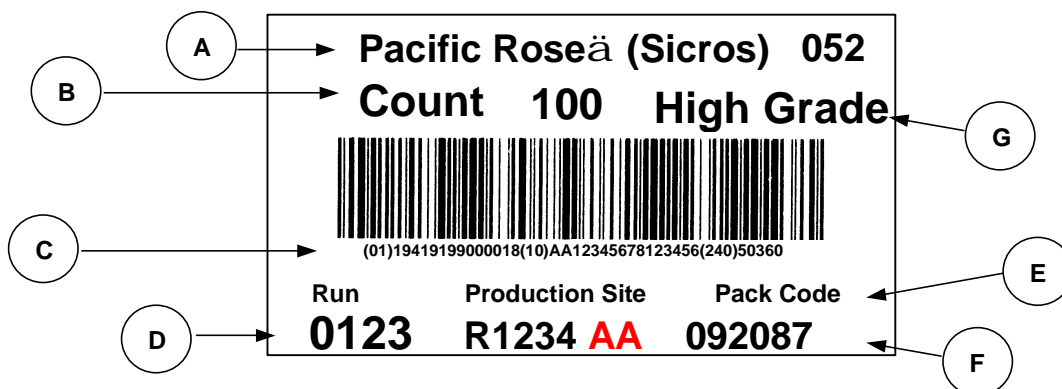


Table 2.4: Print Text Options

Letter	Information	Text Size	Text Type	Comment
A	Variety Name & Code	6 mm	Helvetica or Arial	The full variety name and trademark (including symbols ® and ™) must be printed
B	Word "Count" & the actual count	8 mm	Helvetica or Arial	
C	Human Readable Information	4 mm	Helvetica or Arial	
D	Run information	6 mm	Helvetica or Arial	Optional for packhouse use. 15mm by 40 mm area in the bottom left corner of the label
E	Words "Production Site" & "Pack Code"	3 mm	Helvetica or Arial	
F	Production Site & Pack Code Date	6 mm	Helvetica or Arial	
G	Grade	8 mm	Helvetica or Arial	

- Note: All text sizes are capital letter height sizes

6mm  **Royal Gala**

### 3 BARCODE STANDARD

#### 3.1 Compliance with the EAN 128 Standard

- The barcode should comply with the EAN 128 standard.
- Scanning will be used to verify barcode labels. Barcodes must scan first time, every time.
- EAN New Zealand provides a free bar code testing service.

Send samples to:

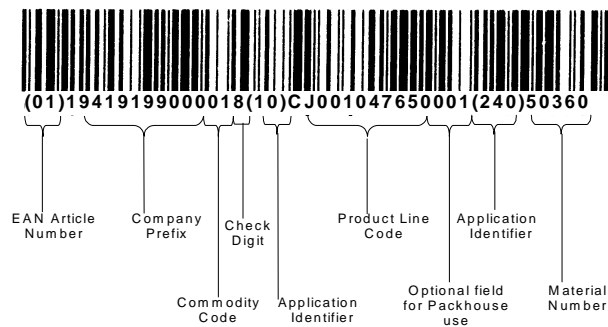
EAN New Zealand Inc  
 PO Box 11 110  
 Manner Street  
 Wellington

### 3.2 Barcode Human Readable Information Requirements

Table 3.2 and Figure 3.2 below detail the human readable information required to be printed with the barcode.

Barcode Component	Description	No. of digits
EAN Article No.	EAN identifier. This will always be (01).	2
Extension Digit	Will always be 1	1
EAN Company Prefix.	e.g. 941919900.	9
Commodity Code	001 for Apples	3
Check digit	Digit used to verify accuracy of a series of other codes.	1
Batch Application Id	Set by EAN. This will always be (10).	2
Product Line code	A code made up of a 2 digit Packer code and a sequentially unique code for each different line of fruit (eg: AA12345678).	10
Optional field	Area available for optional use by Packers.	Up to 8
Material Application Id	Set by EAN. Additional Product Id (240).	3
Material Number	As per Master Data	Up to 7

Figure 3.2: Barcode Structure



### 3.3 Determining the Material Number

Material numbers can be accessed from Master data on the PIITSA web site.

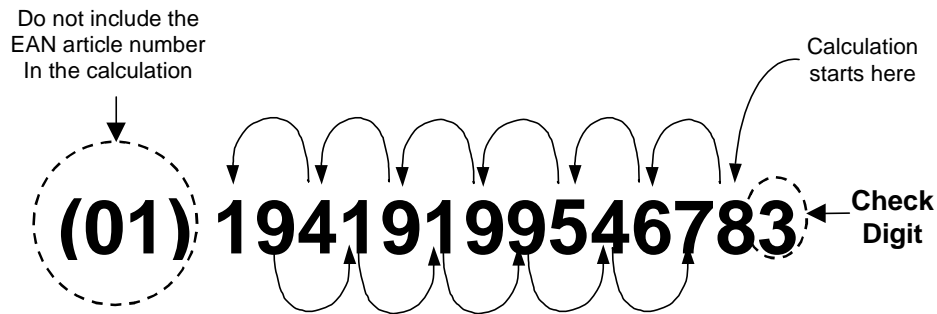
### 3.4 Determining the Product Line Code

This code is determined at the point of packing for each individual line of fruit.

### 3.5 Calculating the Check Digit

Figure 3.5 details how the check digit is calculated.

Figure 3.5: Calculating the Check Digit



**Step 1** Start with the digit to the immediate left of the check digit and add every second number reading right to left (excluding the EAN article number in the calculation).

Example:  $8+6+5+9+9+4+1 = 42$

**Step 2** Multiply the result by 3.

Example:  $42 \times 3 = 126$

**Step 3** Add all the remaining numbers to the left of the check digit which were not used in step 1 (excluding the EAN article number in the calculation).

Example:  $9+1+1+9+4+7 = 31$

**Step 4** Add together the two numbers from steps 2 and 3

Example:  $126 + 31 = 157$

**Step 5** Calculate the number required to take the number in Step 4 up to the next multiple of ten. This is the check digit.

Example: Next multiple of 10 for 157 = 160. Difference between 157 and 160 = 3.  
"3" is the check digit.

Note: For additional assistance a converter programme is available, contact the EAN website :

<http://www.ean.co.nz>

#### Appendix 1: Use of the Master Data

Master data is supplied in a concatenated format (i.e. values are listed in a specific and related sequence). Values are separated by pipe character "|" delimiters (see example below).

Example of delimited master data from PCTXXAL file

ITM|2|3 to 5|N3|Variety|059|PinkLad|Pink Lady|059|Pink Lady|Y|Y|(Cripps Pink)

If there is no requirement for a specific value, (e.g. Trademark variety description, Registered mark symbol ® or Trademark symbol ™) then the value is deemed null and will be shown as 2 pipe delimiters with no characters between them (i.e. ||).

### How to Use Master Data for Variety Names

The final 4 delimited fields of data provided in the PCTXXAL.txt file can be utilised to programme label printers (refer examples below):

Value <i>(See examples below)</i>	Description	Comment
1	Trade marked variety description	Null* = Not required
2	Denotes whether a Registered mark symbol ® is required	'Y' = Yes, Null* = Not required
3	Denotes whether a Trademark symbol ™ is required	'Y' = Yes, Null* = Not required
4	Variety Name	Must always show a value

*Note: Null means there is no value required and is shown as 2 pipe delimiters with no value between them (ie.||).*

For a given Variety Code make up the full variety description by stringing together the Trade Marked Variety Description, the Registered Mark (®', if the flag is 'Y'), the Trade Mark (™', if the flag is 'Y'), and the Variety Name. If there is any value in the string before the Variety Name, then apply one space immediately before the Variety Name.

#### Example 1:

##### 1.1 Using the Master Data

ITM|2|3 to 5|N3|Variety|059|PinkLad|Pink Lady|059|Pink Lady|Y|Y|(Cripps Pink)

##### 1.2 The Label Printing Programme Will Print the Following Variety Name

Pink Lady®™ (Cripps Pink)

#### Example 2:

##### 2.1 Using the Master Data

ITM|2|3 to 5|N3|Variety|035|Braebur|Braeburn|035|||Braeburr

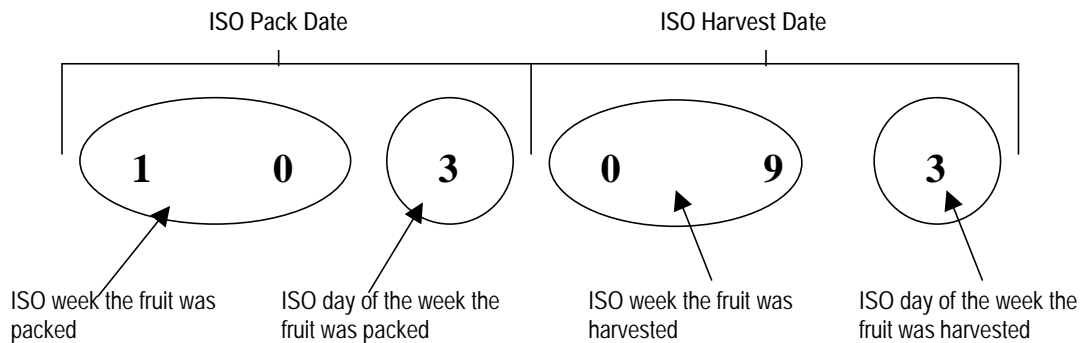
##### 2.2 The Label Printing Programme Will to Print the Following Variety Name

Braeburn

## Appendix 2: Calculating the ISO pack date code

- Each pack must be printed with the correct pack date code.
- The pack date code identifies both the pack date (first three numbers) and the harvest date (second three numbers)
- The first two numbers for each set of three is the ISO week and identifies the calendar week of the year. The 1<sup>st</sup> week of the year commences when the first Thursday occurs.
- The last number for each set of three is the ISO day, and identifies the day number in the week, Day 1 being Monday.

How to convert calendar dates to ISO dates:



The above example shows the fruit was harvested on the 26<sup>th</sup> February 2003. The table in Appendix 3 shows the 26<sup>th</sup> February to be day 3 of week 9 so the ISO date is 093. The fruit was then packed on the 5<sup>th</sup> March 2002. The 5<sup>th</sup> March is day 3 of week 10 so the ISO date is 103. The pack date is written BEFORE the harvest date as shown in the above diagram.