

Getting the best out of ogistic Labels

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Executive Summary

Major retailers have identified incorrect logistic unit (pallet) labelling as a major emerging supply chain issue. A recent sample audit found that approximately 44% of pallet labels are not meeting agreed upon industry requirements. The issues they face include:

- No label has been applied
- Label is in the wrong location
- Information on the label does not match what is on the pallet
- Multiple labels with different Serial Shipping Container Codes (SSCC) been applied
- Pallet label will not scan
- Stretch-wrap has been applied over the pallet label so it doesn't scan

The following information contains guidelines and general information on how to create and apply good quality logistic (pallet) labels as per the standard requirements of the Australian Grocery and Liquor Industry.

As the Australian Grocery and Liquor Industry adopts the key principles of Efficient Consumer Response (ECR) there is increased demand for high quality data capture at all points in the supply chain. Although the industry has been numbering and bar coding trade items for a number of years, the biggest emerging problem in the supply chain is logistic unit labeling.

With the migration to more and more automated scanning in warehouses and distribution centres, it is imperative that suppliers and their logistics providers ensure 100% scannability of all bar codes which will bring mutual benefits to all trading partners. Printing and applying a good quality bar code label that complies to industry standards and which is scannable by all trading partners' costs no more than printing and applying a bar code label that doesn't scan.

This document and its recommendation should be read in conjunction with other GS1 Australia technical guidelines as well as retailer specific documentation all of which can be accessed and downloaded from their respective websites (refer section 10 on where to go for further information).

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1. The Importance of Logistic (Pallet) Labels

The use of the logistic label incorporating the Serial Shipping Container Code (SSCC) by all parties in the supply chain, from manufacturers to transporters, distributors and retailers, is seen to be inevitable for the identification and tracking of pallets and other forms of logistic units. The purpose of the GS1 logistics label is to uniquely identify specific information about the pallet clearly and concisely in a standard format, to facilitate the process of moving products through the supply chain quickly and efficiently.

Industry Business Benefits of GS1 Logistics Label
 Logistics Units are identified with a number that is unique worldwide GS1 standards are global and apply through the entire supply chain, from raw materials supplier to manufacturer to distributor /wholesaler to end user/retailer. Provides a link with bar coded information on a logistics unit and the information that is communicated between trading partners via electronic business transactions. Use to identify contents of pallets, including stock data, use-by-dates etc. Contributes to efficient management of stock rotation at a glance Saves costs by doing it once Avoids multiple label types (industry standard) Faster receiving, quick turnaround Improves data integrity – use by date and quantity fields Stock rotation based on use by date Pallet tracking from vendor to retailer can assist product recalls Works in conjunction with a Despatch Advice – Advanced Shipping Notice (ASN) SSCC can be used for both inter and intra-company transactions.

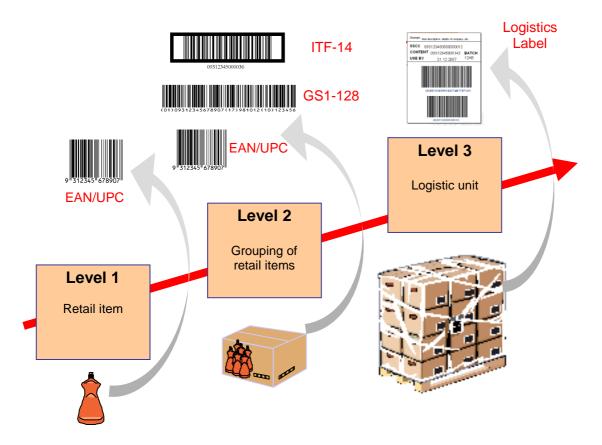


Fig 1: Example of Numbering & Bar coding Labelling Hierarchy

Retailer Perspectives

Woolworths



You wouldn't drive a car without licence plates on the front and back. Woolworths wants to drive pallets more efficiently through our joint supply chain by using industry standard pallet labels on the front and back, containing the unique SSCC and other information about the contents of the pallet Using Industry Standard pallet labels are a way for Woolworths and trading partners to work together to lower end-to-end supply chain costs.

In January 2000, all Woolworths Purchase Orders (PO) delivered into Minchinbury (NSW) and Hume (VIC) ambient Distribution Centres (DC) required an identical pallet label on each fork entry side of a pallet. Since 1 January 2005, all Woolworths PO delivered to any Woolworths DC and any Versacold DC require a pallet label on each fork lift entry side of a pallet (i.e. 2 identical pallet labels per pallet).

When logistic label requirements are not met or adhered to, the direct or indirect costs can be substantial. A receiving process that should take a few seconds per pallet suddenly takes a few minutes as generic labels need to be printed and applied onsite and all pallet details re-keyed manually by a staff member. One issue in applying generic labels is the loss of traceability of the SSCC, which can have severe cost impacts if a product recall occurs in the future.

These problems and delays very soon add up and hinder our ability to turn your vehicle around in the shortest possible time. The sooner we can verify and process your delivery, the sooner we can have your trucks turned around and your drivers back on the road. This is not only important in the context of cost reduction but is vital to achieving our shared goals and obligations with respect to Chain-of-Responsibility and driver fatigue management.

Metcash



To achieve a cost effective flow of goods, packaging and bar code specifications must consider the needs of manufacturing, distribution and retail operations. The objective is to have scannable bar codes and accurate logistics master data to support cost effective movement and protection of product through the supply chain minimising the safety risk imposed on those that handle the goods.

A number of bar code requirements, such as trade unit and logistics labels are "Core Competencies" to conducting business with Metcash Trading Limited today. Compliance with these requirements is vital to ensure products move through our supply network in a safe and cost effective manner to our retail customers.



Coles

Business to Business (B2B) eCommerce is about removing manual processes and paper and replacing them with electronic transactions in conjunction with automatic data capture technology. B2B is not a business phenomenon, it's a global reality. Over 60% of our suppliers are now B2B compliant and we are working hard with non-compliant suppliers to ensure they are given the necessary support to implement B2B soon. If you want to do business with Coles in the future, you need to become B2B compliant.

Grocery Holdings Pty Ltd (GHPL) DCs prefer to deal with compliant suppliers because of the labour savings B2B generates. DCs have cost budgets too, and it makes sense for them to schedule deliveries at the cheapest times to process them (i.e. during standard business hours, wherever possible).

The B2B process enables information such as batch codes and use-by dates to flow from system to system easily and accurately, and this helps ensure customers consume goods at their freshest.

Faster truck turnaround time occurs because DCs 'scan receive' the stock into their systems, as opposed to the old manual process. B2B compliant suppliers are already talking to their transport providers about productivity gains that occur because of this and are looking to use this to offset future transport cost increases.

2. Logistic (Pallet) Label Requirements for the Australian Grocery & Liquor Industry

The GS1 Logistics Label can typically have many different formats. The SSCC is the only mandatory piece of information that must be contained on the label itself as ideally the information flow, which accompanies the physical flow of goods, is communicated between trading partners by eMessaging.

In practice, however, fully automated communication channels, which make it possible to rely exclusively on electronic files for retrieving information on the movements of goods, are not always available. In this situation there may be a requirement to add additional information to the logistics label to facilitate the process of the logistic units through the supply chain.

The purpose of the GS1 logistics label is to provide information about the unit to which it is fixed, clearly and concisely. The core information on the label should be represented both in machine (bar code) and human readable form. There may be other information, which is represented in human readable form only.

The major Australian Supermarket Retailers have agreed on a standard consistent format for the industry.

3. What can go wrong? – Common Pitfalls

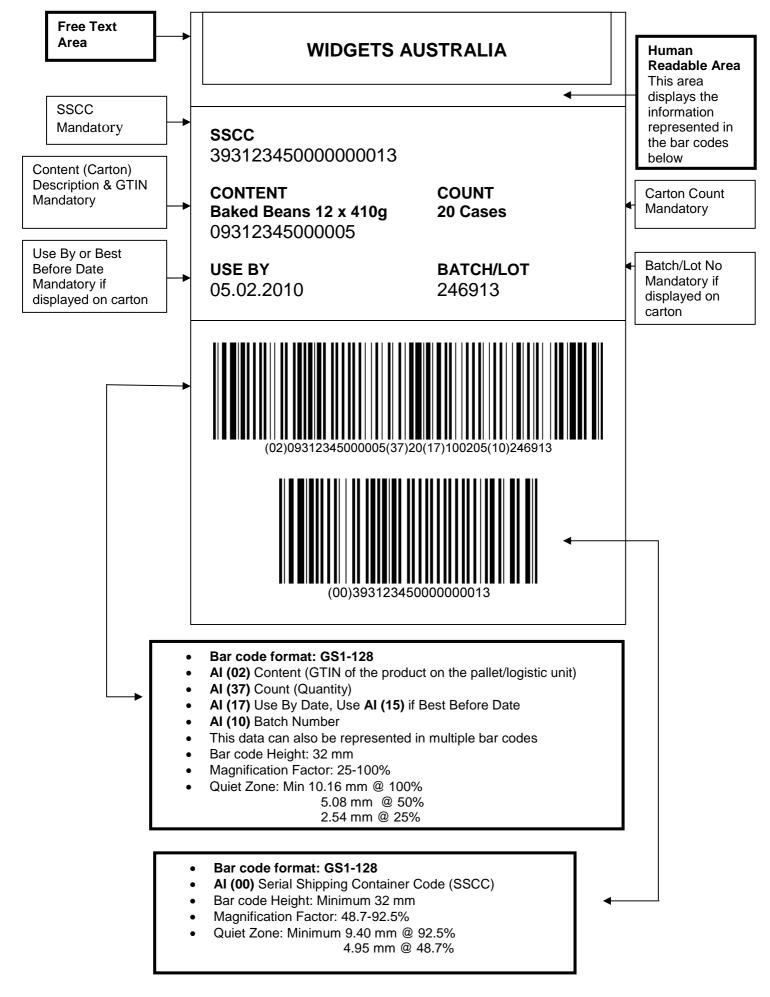
It is imperative that suppliers and logistics providers ensure 100% scannability of all barcodes.

There are many reasons as to why pallet labels may not meet industry requirements, here are some examples

- Label position incorrect (refer to section 6)
- No pallet label applied
- Multiple or mismatching SSCCs on the same pallet (refer to section 5)
- Duplicated SSCCs (refer to section 5 reuse of SSCC's
- Damaged label such as creases and folds.
- Will not scan due to incorrect bar code symbology or poor print quality
- Label applied underneath stretch wrap
- Pallet label applied to only one side of the pallet
- Product information applied in the bar code does not match the product on the pallet
- Pallet label bar codes not scanning
 - o Ribbon wrinkle with thermal transfer application
 - Print-head element failure leading to a line through a black bar (split bar) within the bar code

- Poor print quality faint print due to the label print-head heat being too low or the print speed too high
- Poor print quality bleeding print due to the label printer print-head heat being too high with the print speed too low
- Handwritten changes are not reflected in the bar code and are therefore not permitted on pallet labels
- Label applied over carton joins/seams causing tearing

Figure 2: Australian Grocery Standard Logistic (Pallet) Label - Portrait Format Label not to scale



4. Logistics Label Requirements

4.1 Label Size

• The minimum label size is A6, 105mm x 148mm, however larger label sizes such as A5 or A4 are permitted

4.2 Label Format

- The label layout can be either portrait or landscape
- Information contained in the top bar code can be broken down into more multiple bar codes if required, in order to maintain a larger magnification (bar width)

4.3 Label Location

- Two identical labels, one placed on each fork entry side
- Label should be placed between 50mm 100mm from the right hand vertical edge
- Label should be placed between 400mm 800mm from the base of the pallet
- The target placement of the label (top of SSCC bar code) is 600mm from ground level

4.4 Label Data and Application Identifiers

- SSCC (Serial Shipping Container Code) AI (00)
 - It is recommended that additional information not be included in the SSCC (00) bar code unless feasible
- GTIN of the product AI (02)
 - The data format for AI (02) is that it has to be numeric and 14 digits in length. Note: that if your carton barcode number is 13 digits (e.g. a case of beer or soft drink), you need to include an additional zero at the beginning to increase it to 14 digits
- Quantity of trade units on the pallet AI (37)
- Date Information YYMMDD Mandatory if this information is on consumer unit
 - Use By Date AI (17)
 - Best Before Date AI (15)
 - Packed on Date AI (13)
- Batch Number, if on consumer unit AI (10)
- Total Net Weight (excluding wooden pallet weight A1 (310n) where n = number of decimal places eg. 3102 = x.xxkg, 3101 = xx.xkg, 3100 = xxxkg

4.5 Further Information Logistic Label Examples

 For further information on Application Identifiers including their format, refer to GS1 Australia's Numbering and Bar coding User Manual: <u>http://www.gs1au.org/information_library/user_manuals.asp</u>

- Woolworths Supermarkets Packaging & Bar code Specifications: <u>http://www.wowlink.com.au/TopicCentre/SupplyChain/PackagingBarcodes/Specifications</u>
- Coles B2B Logistic Labelling Standards: <u>http://www.supplier.coles.com.au/eCommerce/implementing-b2b/rules-</u> <u>standards.aspx</u>
- Metcash Packaging, Bar code & Logistics Specifications: <u>http://www.metcash.com/index.cfm?page_id=2184</u>

5. What is an Serial Shipping Container Code (SSCC)

The Serial Shipping Container Code (SSCC) is a reference number or license plate used to uniquely identify logistic units (pallets). The SSCC acts as a "reference key" which can be stored in a computer system to which information can be added and shared amongst trading partners as the logistic unit moves throughout the supply chain. This unique "license plate" provides the opportunity to track and trace logistic units in the supply chain.

Scanning the SSCC marked on each logistic unit allows the physical movement of units to be individually tracked and traced by providing an information flow. It also opens up the opportunity to implement a wide range of applications such as cross docking, shipment routing, automated receiving etc.

The SSCC is used to uniquely identify goods on the way from sender to final recipient, and can be used by all participants in the transport and distribution chain.

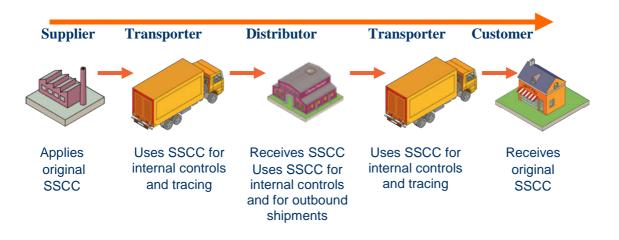


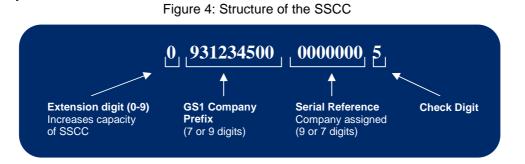
Figure 3: The Use of the SSCC throughout the supply chain

Allocating an SSCC

The SSCC is a unique, non-significant, eighteen-digit number which is **assigned by the company constructing the logistic unit**. It remains the same for the life of the logistic unit. The SSCC is encoded in a GS1-128 Bar Code and is represented by the Application Identifier (AI) 00. For more information on Application Identifiers refer to the GS1 Australia Numbering & Bar coding User Manual at: <u>http://www.gs1au.org/information_library/user_manuals.asp</u>

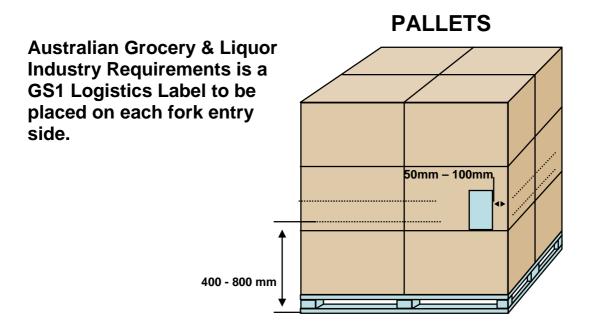
When assigning an SSCC, an individual SSCC must not be reallocated within one year of the shipment date from the SSCC assignor to a trading partner.

How you allocate an SSCC depends on the length of your assigned GS1 Company Prefix. For GS1 Australia members this depends on whether you joined GS1 Australia prior to May 1996, in which case you were allocated a seven-digit GS1 Company Prefix or after May 1996 and were allocated a seven- to nine-digit GS1 Company Prefix.



Application Identifier (00)	Used in the GS1-128 Bar Code to identify that the data following is an eighteen-digit Serial Shipping Container Code (SSCC)
Extension Digit	A digit (0-9) used to increase the capacity of the Serial Reference within the SSCC. The company that constructs the SSCC assigns the Extension digit to the logistic unit.
GS1 Company Prefix:	The GS1 Company Prefix is allocated by GS1 Member Organisations. GS1 Australia allocates nine- or seven-digit GS1 Company Prefixes. It makes the SSCC unique worldwide but does not identify the country of origin of the unit.
Serial Reference:	A Serial Reference usually comprises seven digits (nine digits if the GS1 Company Prefix is seven digits) and uniquely identifies each transport package or logistic unit. The method used to allocate a Serial Reference is at the discretion of the company coding the package.
Check Digit:	Calculated using a mathematical formula. A Check Digit calculator program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at <u>www.gs1au.org</u> .

6. Logistic Label Location



If the pallet height does not permit the pallet labels to be at least 400mm from the ground, then the pallet labels should be placed as high as possible on the right hand side on each of the fork entry sides of the pallet. (Refer to the figure below)



If the pallet needs to be stretch wrapped for stability, the pallet labels must be applied to the **outside** of the stretch wrap as shown above in order to achieve optimum scan rates.

Where there is only one layer high of the trade unit on a pallet and the trade unit height is less than the height of the pallet labels. Please ensure that the bar codes of the labels are on the vertical face of the trade unit with the human readable portion of the labels folded over onto the horizontal surface of the trade unit as shown below.



Multiple Products on a single pallet layer

For Woolworths, a maximum of 4 different line items can be delivered on one pallet as long as the combined total of those cartons does not exceed 1 layer (footprint). Metcash requirements are 1 product per pallet or if not one product per pallet each product must have its own SSCC label.

Multiple Stacked Pallets – Option 1 of 2

Deliveries can be made with multiple stacked pallets which are stretch wrapped together in "one footprint". Each individual pallet will need to have its own pallet label applied **directly on the carton** and **underneath** the stretch wrap, eg. One pallet label on each of the fork entry sides of the pallet, so when the stretch wrap is cut away to separate the pallets, the pallet labels are not lost, as shown below



Multiple Stacked Pallets - OPTION 2 OF 2 -Pallets Wrapped Individually

Where each line item pallet is stretch wrapped individually, pallet labels will need to be affixed to the **outside** of the stretch wrap on both of the fork entry sides of the pallet, as shown below



7. Retailer Receival Processes

Woolworths



 On arrival, a Woolworths Receiver will key in the Purchase Order numbers from the paperwork provided by the truck driver

• The Woolworths Receiver will then proceed to the first pallet on the load. The checker will scan all of the bar codes on the logistic label, then one of the bar codes on the carton.

• The RF scanners will transmit the information back to the Distribution Centre's Warehouse Management System (WMS). The WMS will then verify the scanned information against the Purchase Orders, cross referencing delivered quantities against ordered quantities and checking any best before dates against the minimum and maximum ranges loaded into the system.

• The WMS confirms that the product referenced in the logistic label corresponds to the bar code on the trade unit. If no problems are encountered, the checker moves onto the next pallet and goes onto receive the remainder of the vehicle at which point forklifts begin to unload the vehicle to either a staging lane or in-feed point.

• In **non-automated DCs** forklift drivers will pick up the pallet, scan the logistics label again and will be electronically prompted by the WMS with a location to take the pallet to.

• In **automated DCs** forklift drivers will take the pallet to an in-feed point. Once placed on the conveyor system the pallet will pass by the fixed head scanners which check both fork entry sides of the pallet for a valid ID. If the logistic label can be scanned successfully and the pallet identified, the system manages the storage and retrieval of the pallet automatically from this point.

• If the pallet cannot be identified the system will reject it from the in-feed process and it will be re-worked and re-labelled by a staff member before subsequent in-feed attempts.

Metcash Typical Receival Process



- On arrival, a Metcash receiving checker will key the purchase order number or appointment number (for a multiple PO truck) into the Radio Frequency (RF) receiving unit.
- The receiver will then proceed to the first pallet on the truck and scan all of the bar codes on the pallet label.
- The RF scanner will send the information back to the WMS that will verify the quantities on that pallet against the order quantity on the PO. The WMS also verifies the pallet Ti Hi information is correct and checks that the date code on the item is suitable against the minimum and maximum dates set in the WMS.
- If the pallet is accepted then the receiver moves along to the next pallet and repeats the process. If the pallet is not accepted the checker will conduct an investigation to identify the issue and will re label with a generic label if required.
- Once all pallets are received, the checker will confirm the total quantity against the invoiced quantity and then close the load ready for the pallets to be put away by forklifts using RF scanners. The WMS determines the final location in the warehouse during the receival process.

Coles Receival Process for B2B Suppliers



• On delivery into any receiving location, Grocery Holdings Pty Ltd (GHPL) will count the logistics units, (eg: number of pallets) and compare them to the driver's consignment note and stamp the document accordingly. This is the initial proof of delivery.

• The merchandise is then electronically scan receipted once it arrives at receiving locations. The Advanced Shipping Notice (ASN) must have been transmitted to Coles before the goods arrive at the GHPL DC in order for it to be validated (and rectified if necessary).

• Receiving staff will validate that all SSCCs, as noted in the ASN, are physically received by scanning each Logistics label at the receiving dock.

• When all SSCCs are accounted for, this will trigger the internal processing to update the GHPL stock and PO records and provides information to Coles payment systems.

Logistic unit contents will be checked to ensure contents exactly match ASN details.

Customer pressure on total quality demands each and every product conform tightly to agreed standards.

8. Manufacturer/Supplier Considerations

8.1 Pallet Label Quality Standards

Controlling label quality variation requires an integrated quality process incorporating people, processes, procedures and equipment.

Typically there are two options for the application of the pallet label:

- At the point of manufacture, or
- At the point of despatch

The decision on when to apply the pallet label is dependent on individual organsiations practices, including manufacturing, warehousing, order assembly or third party service providers.

The SSCC label standards should be incorporated into internal standards and available (electronically) to all factories and warehouses. The same standards are communicated to third party providers both at contract time and by the use of training packages, if necessary. Visual aids are encouraged in factories, warehouses etc to impart SSCC label standards, especially positioning of the labels.

With many automated and manual labeling systems check scanning controls can be purchased as part of the system, providing a level of automated bar code quality checking and control. These systems incorporate a check scanner at the front of the label printer so that as each label is printed the bar code is scanned to check quality. If a fail to read occurs the printer can print void on the erroneous label and re-print. After multiple failures i.e. 2 or 3, the unit will stop and raise an alarm.

Considerations

- Automate the data sources to simplify printing and reduce the need for data entry.
- Label design tested and sent to GS1 testing service for its verification report
- Document processes
- Train staff to visually
 - o check the pallet label and position applied
 - o scan label barcodes to ensure readability

Incorporate checks for

- Correct Bar code symbology (GS1-128)
- Label placement
- Label verification
- Label Defects

8.2. Visual Checklist

Does the data encoded in the pallet label bar codes match the product on the pallet eg

- GTIN
- Batch number (if applicable)
- Quantity
- Date code information, eg. best before or use by date

The pallet labels applied to the pallet must contain the same SSCC. Pallet labels should not be placed over two separate cartons. Pallet labels should be placed on the outside of the stretch-wrap. Determine if any white lines running vertically through the black lines of the bar code that may hinder the bar code from scanning are evident.

8.3 Audits

It is recommended to perform a compliance audit of the labels coming from each factory, warehouse and third party provider every quarter. Results should be reported back as percentage compliance and the issues found highlighted, together with photos, if necessary.

8.4. Training

It is imperative that anyone that is required to print or apply pallet labels understand the industry requirements. Training and documentation is widely available. Refer to section 10.

8.5 Use of KPIs

Establish performance metrics as part of the pallet quality checking procedures. This could be plotted graphically by warehouse upon feedback from trading partners.

The data should be circulated to all factories and warehouses including third party logistics providers, each week with any relevant comments. Provide all of the raw data obtained to help find solutions to particular issues. Include the overall trend of performance for the last twelve months

Communicate progress to factory and warehouse managers at regular operations meetings to ensure the focus is maintained on the importance of achieving this and other key supply chain standards.

8.6 Third Party (3PL) Logistic Service Providers

- What role/service are they providing
- Are they applying labels
- Have you incorporated them into your logistic unit labeling requirements
- What label application and quality control process do they have in place
- Are they scanning any part of the label prior to despatching goods
- What is their label printer cleaning and maintenance process

9. Label Hardware & Software Considerations

9.1 Printers

Today both desk top and automated print & apply labeling systems are available The most common bar code label print and apply methods are direct thermal and thermal transfer.

Direct Thermal: Direct thermal printers contain a thermal print head that applies heat energy to a specially coated facestock that turns black when heated to create the required images. Direct thermal saves money by not requiring the use of an inking ribbon. However, the coated facestock is more expensive than non-thermally coated facestocks and is very sensitive to temperature, light, water, chemicals and hard use. The life expectancy of direct thermal labels is usually less than one year. Direct thermal labels perform best for short term or indoor uses such as products with short shelf lives, shipping or indoor inventory control. There are two types of label face stocks; Thermal Eco and Thermal Top.

Thermal Eco is only advisable for use in short term distribution where goods are dry. They shouldn't be used in cool or freezer conditions as the material will absorb moisture and turn black, thereby obliterating print and bar codes. Thermal Eco has a sensitive surface and any rubbing with other products will generally result in labels having a smudged or scratched surface.

Thermal Top is far more durable than Thermal Eco and is relatively impervious to moisture. It has a top coating to protect the thermal coating from being defaced by rubbing or scratching. Both materials are suitable for Thermal Direct and Thermal Transfer Printers, including Zebra, Intermec, Toshiba, Tec, Datamax and other brands. Print-head life is diminished by approximately 50% using thermal label stock over Thermal Transfer label stock.

Thermal Transfer: Thermal transfer printing is the most widely used method for inhouse bar code label printing. A thermal print head is used to generate heat energy that in turn transfers the ink from a ribbon onto the label facestock, creating the required images. This method improves upon direct thermal printing in several ways.

- A wide variety of both paper and synthetic facestock materials may be used with black ribbons
- Print quality is very high; the image is long lasting and durable.

- Bar codes can easily be read by both infrared and visible light reading devices.
- Double the print-head life compared to thermal label stock

A wide variety of thermal transfer ribbons are available and it is very important to match your ribbon selection to your application.

There are three basic formulations of thermal transfer ribbons that are:

- "Wax-based ribbons" are low in cost and suitable for most applications. Label images may be scratched in use or smear if the temperature is too high (i.e. over 50°Celsius)
- "Wax-resin ribbons" produce label images with higher durability than waxbased ribbons but are lower cost than pure resin based ribbons. It is the most popular ribbon as it can be used on a wide range of materials, that include polyethylene (PE) and polypropylene (PP) materials.
- "Resin-based ribbons" produce label images that are much more resistant to wear and extreme conditions. Some resin inks used on certain facestocks can withstand temperatures over 1000 degrees. However, resin-based ribbons tend to be rather expensive.

Whichever ribbon or ribbons you use, be sure your media supplier has assured you that the ribbon:

- a) Has a combination of tensile strength and smooth surface that will allow for high-speed printing but will not tear, stick or slip during the actual label printing operation.
- b) The ink is of the proper type and formulation and can be applied uniformly to the selected facestock and that it binds well.

One important consideration when using Thermal transfer for producing bar code labels is the possibility of ribbon wrinkle which can result in unreadable bar codes. The label printer must be aligned correctly to ensure even tracking of ribbon.

9.2 Print Speed

You may need from 2 to 12 inches per second (IPS) print speed for your label generation requirements, however even more important is label throughput, measured in labels per minute. Make sure that your printer of choice can produce the minimum number of high quality labels to meet your requirements. Different printers have "mean time before failure" (MTBF) specifications. Also check print-head warranties and whether on-site servicing is available.

Maintenance agreements should be included as part of set-up and training. It is also essential that all staff are aware of the necessary daily cleaning requirements of these units. This should be included in their routine maintenance procedures. Most printers come with a 12 month warranty but have options for extended warranties. Print-heads generally are not in a warranty agreement.

9.3 Labels

It is important to consult a reputable label supplier to give you direction as to the best label face stock and adhesive to be used. The choice of label face stock will revolve around whether a direct thermal or thermal transfer method of printing is used. Other issues to come into play are the intended lifespan of the label and whether the label is likely to come into contact with moisture.

Thermal label stocks are used for short term labeling up to 6 months where the longevity is dependent on the environment. This material is not UV stable and will deteriorate in direct sunlight within days.

In terms of adhesive choice, consideration must be given to the substrate the label is being applied to i.e. stretch wrap or cardboard. Knowledge of the temperature at the time of application and during service is vital, as in chilled/frozen environments you need to get a label facestock that has a coating that does not absorb moisture. This is particularly important if it is anticipated that the label will need to remain on the pallet for a couple of months. For instance, a specific freezer grade adhesive may be necessary if the label is being applied to pre-frozen items

9.4 Label Application Options

Labels can either be hand applied in conjunction with a desk top thermal printer or applied automatically in an online environment.

9.5 Environment

Attention must be paid to the environment in which the hardware and labels are stored and used. Ideally the printing and application of the labels should be conducted in a clean environment and at temperatures that are neither extremely cold nor hot. Issues such as dust can impact upon printer performance whilst temperature extremes will prematurely degrade the labels.

10. Where can I get Further Information?

• GS1 Australia

National Number: Contact Email: Website:

1300 366 033 gs1aust@gs1au.org http://www.gs1au.org

GS1 Australia solution provider directory http://www.gs1au.org/membership/spd/

• Woolworths

Woolworths Ambient, Liquor, Chilled and Frozen DC Bar Code Label: <u>http://www.wowlink.com.au/TopicCentre/SupplyChain/PackagingBarcodes/Sp</u> <u>ecifications</u>

• Metcash

Metcash Packaging, Bar Code & Logistics Specifications: <u>http://www.metcash.com/index.cfm?page_id=2184</u> Coles

Coles B2B Logistic Labelling Standards: http://www.supplier.coles.com.au/eCommerce/implementing-b2b/rulesstandards.aspx

- Efficient Consumer Response Australasia
 http://www.ecraustralasia.org.au/
- Australian Food and Grocery Council <u>http://www.afgc.org.au/</u>

11. GS1 Services

11.1 Bar Code Verification

GS1 Australia offers a bar code verification service to all members. Bar codes are tested for print quality against ISO standards to ensure they will be read easily through the supply chain. We also test the validity of the number encoded and ensure it is unique to this product and within the brand owner's available allocation.

A full Bar Code Verification Report is issued for each test that confirms compliance and makes educational suggestions for improvement where applicable.

For further information on this service visit: http://www.gs1au.org/services/barcode_testing/

11.2 Onsite Pallet Label Quality & Process Assessment Service

GS1 Australia in conjunction with industry has developed an onsite service for companies where they will provide in a report format, a quality assessment of pallet labels including the process behind their application.

The service will include, documentation of printer brand(s) and model numbers as well as any service, cleaning and maintenance logs and procedures that might be in place. Pallet label samples from each different site or printer will be assessed for:

- Label format
- ISO grade
- Scan rate
- Technical specifications (correct bar code symbology, bar height, product information etc)

GS1 will also document and provide feedback on the label application process itself including:

- Is the label applied automatically on-line, or by hand
- Does label location on the pallet meet industry requirements
- Has the label been applied to the correct pallet
- Is any part of the label scanned or otherwise assessed for quality prior to despatch.

For more information on this service please contact the Industry Management team at GS1 Australia on 1300 366 033 or via email:

11.3 Training Services

Different training modes make GS1 learning convenient even for the busiest of schedules. An array of education options and training sessions allows members to get the supply chain management education you need, regardless of where you live or when you are available. For further information on training options visit: http://www.gs1au.org/services/education_and_training/

12. Acknowledgements

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Working Group Participants

- Australian Food & Grocery Council
- GS1 Australia
- Woolworths Ltd
- Coles Group Ltd
- Metcash Ltd
- Unilever Australia
- Kimberly Clark Australia
- Nestle Australia
- Schweppes Australia

Solution Providers

- Insignia Pty Ltd
- Matthews Australia Pty Ltd
- Peacock Bros Pty Ltd

http://www.insignia.com.au/ http://www.matthews.com.au/ http://www.peacocks.com.au/