Global Barcode Marking Standard for EDM Material (Chemicals)

ABOUT FLEX

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BACKGROUND/INTRODUCTION

1.1. All chemical EDM (Expensed Direct Materials) manufacturers and suppliers packaging need to have required identification label bar code and human readable legends.

2.0 PURPOSE

2.1. Flextronics requires the attachment of an identifying label on all different EDM defined as “chemical” material packages on all shipments received.

2.2. The intent of this standard is to identify packages with a label that meets specific requirements, including presenting the information on the label in both human readable and bar code forms.

2.3. The intent of this standard is to identify also commercial invoices for “chemicals” that meets specific requirements, with quantity, part number; lot number and expiration date.

2.4. Including presenting the information on the “commercial invoice” in both human readable and bar code forms.

3.0 SCOPE

3.1. This standard attends to only EDM designed as “chemicals” used to build/assembly PCBA’s. (Solder paste, flux, solder wire, see table 1 for more references).

3.2. The primary intention of this standard is to facilitate automation within receiving and manufacturing operations using bar code technology. The label should be affixed to all material packages, boxes, cartons, pallets, cases, barrels, reels, jars, syringe, etc. as well as EDM chemical commercial invoices that must follow the same approach.

3.3. This standard covers both shipments made by the supplier to Flextronics directly (referred to as MRP in this document) and to shipments by the supplier to a 3PL hub for Flextronics projects (referred to as SIC in this document) in which they maintain title.

3.4. This Document does require RoHS compliance identification when the parts fulfill the requirement and a non RoHS compliance when not fulfill this requirement.

4.0 DEFINITIONS and ABBREVIATIONS

4.1. Barcode – a machine-readable representation of information in a visual format on a surface.

4.2. Label – a card, strip of paper etc., marked and attached to an object to indicate its name, contents, ownership, designation, etc.

4.3. EIA Standards – The Electronics Industry Association (EIA) standards

4.4. CEA Standards – The Consumer Electronics Association (CEA) Standards.

4.5. Code 128 – a very high-density alphanumeric bar code. The symbol can be as long as necessary to store the encoded data. It is designed to encode all 128 ASCII characters, and will use the least amount of space for data of 6 characters or more of any 1-D symbology. Each data character is made up of 11 black or white modules. The stop character, however, is made up of 13 modules. Three bars and three spaces are formed out of these 11 modules. Bar and spaces can vary between 1 and 4 modules wide.

4.6. Code 39 – an alphanumeric bar code (sometimes called Code 3 from 9 or 3 of 9) designed to encode 26 uppercase letters, 10 digits, and 7 special characters. Each data character is made up of 5 black bars and 4 white spaces for a total of 9 elements. Each bar or space is either “wide” or “narrow” and 3 out of 9 elements are always wide.

4.7. ANSI – a standard published by American National Standards Institute.

4.8. ASCII – American Standard Code for Information Interchange is a standard that identifies letters, numbers, and various symbols by code numbers for exchanging data between different computer systems.

4.9. Data Identifier – a specific character, or string of characters, that defines the intended use of the data element that follows.

4.10. EDM (Expensed Direct Material): Indirect raw material that is buying by Flextronics, which may or not be use directly in the manufacturing process.

4.11. Chemical: organic or inorganic substance is a form of matter that has constant chemical composition and characteristic properties. Chemicals may be in the form of solids, liquids, or gases / any substance used in or resulting from a reaction involving changes to atoms or molecules.

4.12. Chemical to label: any substance that touch the products/parts. Any chemicals that are need it to build the assembly and/or are in contact with the products/parts.

4.13. Lot code: Product made by batch, lot code identifies certain amounts of lots made with the same machine/ chemical/building, etc.

4.14. Date code: A code or code date should be information that has meaning to the manufacturing or packing plant for tracking purposes of a product, specifically, a means of identification of product slaughtered, prepared, processed, or packaged on a certain date in the case of a recall. If the code links to a production date, that is enough; that is actually the purpose of the code to identify the date of production or a lot from a specific date. However, codes should not have meaning that is misleading to a consumer. If a plant is using "codes" that appear to be dates, it should revise its coding system or apply the proper use of calendar dating in accordance with 9 CFR 381.129(c). Please refer to the USDA link.

4.15. Lot number: Specific number of a series of parts made with the same process settings, parameters, chemicals.

4.16. Expiration date: Latest date when you can use the chemical before start losing their properties.

4.17. RoHS: Restriction of Hazardous Substance.

4.18. Solder Paste: solder compound made of a mixture of solder spheres and flux.

4.19. Flux: Chemical made mainly by resin or rosin compounds, a substance that aids, induces, or otherwise actively participates in fusing or flowing, aid soldering.

4.20. IPA: isopropyl alcohol; a colorless volatile flammable liquid.

4.21. Adhesives: any substance that, when applied to the surfaces of materials, binds the surfaces together and resists separation.

4.22. HCS: Hazard Communication Standard

4.23. OSHA: Occupational Safety and Health Administration

5.0 REFERENCES

Document Title	Document Number	Document \ Hyperlink
General Specifications on RoHS Compliance for Suppliers.	FBP-RHS001	http://app.flextronics.com/level2declaration/Documentation/FBP-RHS001_revD.pdf
The Electronic Components Industry Association copies are available from, EIA Engineering Publication Office, 2001 Pennsylvania Ave., N.W. Washington, D.C. 2006.	**ECIA** Standard	http://www.eciaonline.org/
The Consumer Electronics Association copies are available from, Global Engineering Documents, World Headquarters, 15 Inverness Way East, Englewood, CO USA 80112-576.	**CEA** Standards	http://www.ce.org/
OSHA: Occupational Safety and Health Administration: APPENDIX C TO §1910.1200—ALLOCATION OF LABEL ELEMENTS (MANDATORY)	**OSHA** Standard	http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDSandp_id=10102 http://osha.gov/dsg/hazcom
Hazard Communication Standard (HCS)	**EHS** Standard	http://ehstoday.com/osha/guide-oshas-new-ghs-chemical-labeling-requirements
Globally Harmonized System (GHS)	**GHS** standard	http://ehstoday.com/ghs
• ISO/IEC 16022:2006—Data Matrix bar code symbology specification • ISO/IEC 15415—2-D Print Quality Standard	**ISO/IEC** 16022:2006	http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=44230
• Authenticated Us Government Information (GPO)	**USDA** Standard	http://www.gpo.gov/fdsys/pkg/CFR-2008-title9-vol2/pdf/CFR-2008-title9-vol2-sec381-129.pdf

6.0 POLICY STATEMENT

6.1. All chemical's EDM manufacturers and suppliers that provide raw materials to Flextronics are required to follow this policy.

7.0 PROCESS FLOW CHART

7.1. **N/A**

8.0 PROCEDURE

8.1. **EDM (Expensed Direct Materials):** also known as IDM (Indirect Material) are raw materials bought by Flextronics that are need it for the PCBA assembly process. The materials market as “chemicals” are the main material but not the only that need it to follow this policy. Table 1 shows chemical categories and types.

Table 1 Table 1 categories and types of chemicals used to build/assembly PCBA’s.

EDM Chemical type	
Description	**Category**
Use for bond process	**Adhesives**
Any chemical used for clean purpose	**Cleaners**
Protective coatings	**Coatings & Fillers**
Chemical that aid soldering	**Flux**
For any chemical not include in this table	**Others**
Solder in solid form	**Solder Bar**
Mixture of solder balls and flux	**Solder Paste**
Solder in solid form in reel	**Solder Preform /pellets**
Solder in solid form in a wire form, with or without flux	**Solder Wire**

8.2. **Barcode Specification:** Flextronics requirement is to use Code 128 on all inbound shipments from suppliers. Code 39 shall be used as an option if supplier does not have Code 128 capability.

8.2.1. Code 128 check digits provided.

8.2.2. Supports full ASCII 128 character set.

8.2.3. Allow the use of different prefixes / suffixes for better use of customer part identification (turnkey, consigned other).Allow the use of different prefixes / suffixes for better use of customer part identification (turnkey, consigned other).

8.2.4. Code 39 with no check digits.

8.2.5. The minimum height of bar code shall be 0.5 inches (13 mm)

8.2.6. The minimum height of the human readable interpretation shall be 0.2 inch (5mm)

8.2.7. Narrow bar width, X dimension: 0.01 inches (0.254 mm) preferred.

8.2.8. Wide to narrow bar ratio: 2.5 to 3.0 preferred.

8.2.9. Leading and trailing quiet zone (the quiet zone is an area of completely white space to the left and the right of each bar code) of 0.25 inches is preferred and 0.17 inches is minimum.

8.3. **Label Format:** Figure 1 illustrates standard bar code label format that will enable users to encode information required by automating receiving and manufacturing systems. The label also provides sufficient information for manual system to operate effectively.

8.3.1. For Flextronics MRP parts or Individual purchase orders, the supplier must comply with this label format.

8.3.2. For Flextronics SMI parts (Hub), the supplier can use a label format of their preference; however, the data fields and content as defined below are applicable.

8.3.3. **For Supplier Hub (SMI/SIC) parts, it is Flextronics intent to minimize our liability, and** assure that the products in the Hub remains generic and useable by other customers. As such nothing in this document is intended to customize these products in such a way that it is no longer a commodity product.

Figure 1

Name	EAN, UPC	ITF	CODE39	CODABAR	CODE128
Symbol					
Character type	• Numeric values (0 to 9) only	• Numeric values (0 to 9) only	• Numeric values (0 to 9) • Alphabet • Symbol (-, ., space, $, /, +, %) • Start/stop character (*: asterisk)	• Numeric values (0 to 9) • Symbol (-, $, /, +) • Start/stop character (a to d)	• All ASCI codes [• Numeric values (0 to 9) • Alphabet, upper case/lower case • Symbol • Control character ([CR], [STX], etc.)]
Features	• Standardized as the distribution code.	• Allows a bar code size smaller than other bar code types with the same digits.	• Availability of alphabet and symbol allows indication of article numbers.	• Possible to indicate some alphabets and symbols.	• Supports all types of characters. • Allows the minimum size of bar code for indication with the numeric values only. (more than 12 digits)
Printable digits	13 digits or 8 digits	Even digits only	Any digits	Any digits	Any digits
Bar structure	• Four bar sizes • No start/stop character • Indicates one character with two bars and two spaces.	• Two bar sizes • No start/stop character • Indicates one character with five bars (or five spaces).	• Two bar sizes • Uses asterisk * for start/stop character. • Indicates one character with five bars and four spaces.	• Two bar sizes • Uses a to d for start/stop character. • Indicates one character with four bars and three spaces.	• Four bar sizes • Three types of start/stop characters. Each type supports its own character type. • Indicates one character with three bars and three spaces.
Application performance	• World universal code • Marked on most daily goods • Book industry	• Standardized as the distribution code.	• Widely used as the industrial bar code. • Automobile Industry Action Group (AIAG) • Electronic Industries Alliance (EIA)	• Blood bank • Slip of door-to-door delivery service (Japan)	• Starts to be used as EAN-128 in each industry. • Distribution business industry • Food industry • Medical industry

Label Data Elements: *(Figure 2)* this section defined all twelve (12) of the data fields on the label and the Data Identifier (prefix). This section is followed by different tables outlining which are required based on if the item is MRP, individual purchase orders or SMI (Supplier Hub) and also depending on marking level.

8.3.4. The ship from: Supplier name, shipping address in human readable form.

8.3.5. Including the Supplier ID is optional for or individual purchase orders, MRP parts or SMI (hub) parts.

8.3.6. Supplier will need to contact purchasing to obtain supplier ID

8.3.7. The ship to: Flextronics shipping address, in human readable form.

8.3.8. Manufacturer packing slip number in bar coded and human readable form.

8.3.9. Purchase order number, in bar coded and human readable form. Data identifier (prefix) for this data field is **14K** for purchase order with line number and **K** for purchase order without line number.

8.3.10. Flextronics part number, in bar coded and human readable form. Data identifier (prefix) for this data field is **P**.

8.3.11. Manufacturer Part Number in bar coded and human readable form. Data identifier (prefix) for this data field is **1P.**

8.3.12. Quantity, in bar coded and human readable form. Data identifier (prefix) for this data field is **Q** for quantity and **7Q** for quantity plus measure.

8.3.13. Date Code Marking per EIA standard 476, in bar coded and human readable form. Data identifier (prefix) for this data field is **9D.**

8.3.14. This code is determined by supplier in accordance with EIA standard 476 which provides for date code format of YYWW where **YY** is the year (e.g., 97 for 1997) and **WW** is the week of the year in which product was manufactured (e.g., 12 designates the 12th week of 1997)

8.3.15. For components that do not use date code it is not required.

8.3.16. In the event multiple date codes are consolidated inside a master carton, pallet or shipper box, this field can be blank.

8.3.17. LOT / Batch number unique to the supplier will be necessary for material traceability purposes for FDA/GMP or Bellcore compliance. Number of characters is limited to 11 maximum. This should be in bar coded and human readable form. Data identifier (prefix) for this data field is **1T** for lot number and **Z** for lot number with expire date.

8.3.18. Supplier Package ID, in bar coded and human readable form. Data identifier (prefix) for this data field depends on the type of shipment, see below :

8.3.19. **3S** – Single order, single item, single transport package

8.3.20. **4S** – Single order, single item, multiple transport packages

8.3.21. **5S** – Single order, multiple items, single transport package

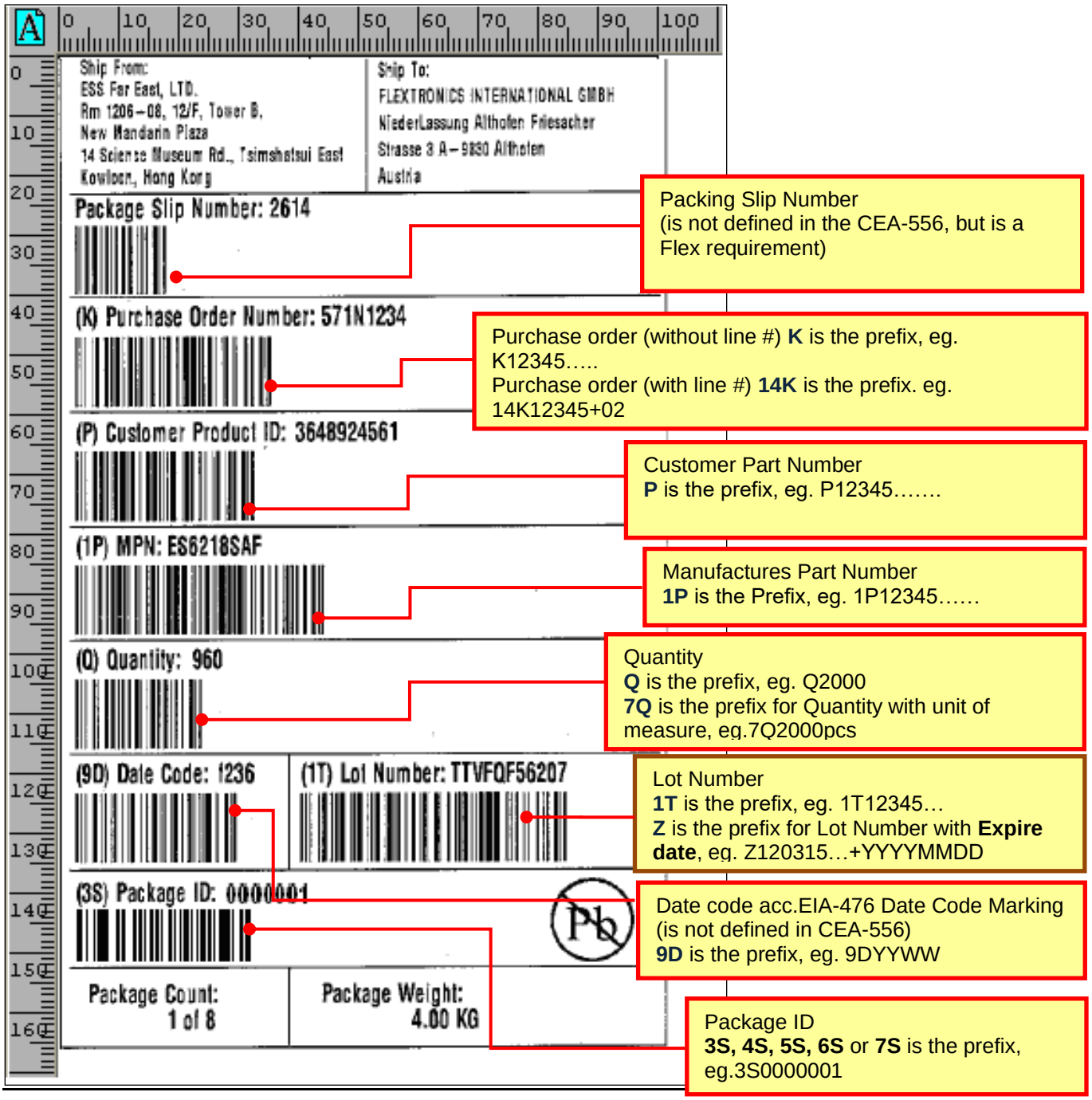
8.3.22. **6S** – Multiple orders, single item

8.3.23. **7S** – Multiple orders, multiple items

8.3.24. The Package Count (the package count should be indicated as the form X of Y, where X is the number of package and Y is the total number of packages), in human readable form.

8.3.25. The Package Weight (weight shown should be accompanied by unit of measure), in human readable form.

Figure 2



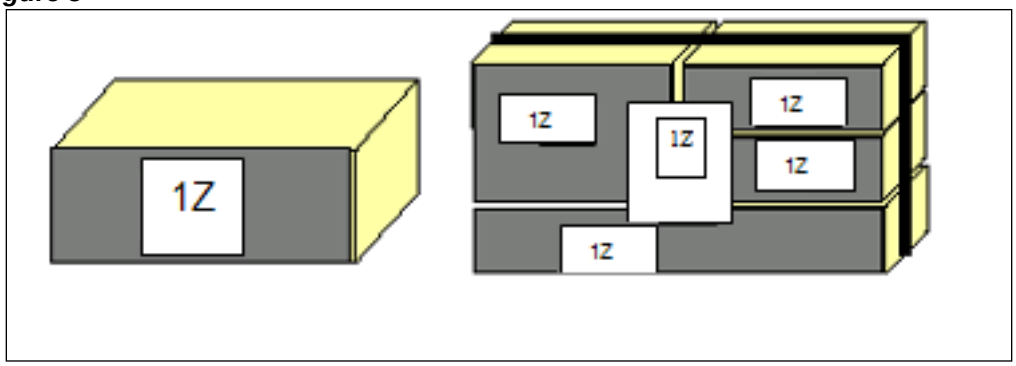
8.4. **Label Information**

8.4.1. **Outer Box / Shipment Label**: When complete marking is required, it should be arranged in accordance with the model below. If shipment packaging contains more than one order number or order line number; a separate agreement has to be made between shipper and Consignee. Table 2 (Below) contains the required data for Outer box / Shipment label. Figure 3 shows the label placement.

Table 2

#	Description	Required for Supplier Hubbed Parts (SIC)	Required For Flextronics Owned Parts (MRP) or Individual purchase orders parts	Prefix to be used
1	Supplier Name, Shipping Address and Supplier ID	Yes	Yes	*N/A*
2	Ship to Address	Yes	Yes	*N/A*
3	Packaging Slip Number	Yes	Yes	*N/A*
4	Purchase Order Number	Optional	Yes	***K***(without line #) **14K** (with line #)
5	Flextronics Part Number	Yes	Yes	***P***
6	Manufacturer Part Number	Yes	Yes	***1P***
7	Description	Optional	Optional	*N/A*
8	Quantity	Yes	Yes	***Q*** **7Q** (for quantity plus measure)
9	Date code	Yes	Yes	***9D***
10	Lot / Batch Number	Yes	Yes	***1T*** ***Z*** *(with expiration date)*
11	Expiration Date	Yes	Yes	***Z***
12	Supplier Package ID	Yes	Yes	**3S, 4S, 5S, 6S** or **7**
13	Package Count	Yes	Yes	*N/A*
14	Package Weight	Yes	Yes	*N/A*

Figure 3



8.5. **Inner Box Label**

8.5.1. The product packing label should follow the standards mention above.

8.5.2. For the inner box label the below figure (Figure 4) and table (Table 3) show the data requirements for both MRP parts, or Individual purchase orders or SMI parts.

8.5.3. All inner container require:

8.5.3.1. Date code.

8.5.3.2. lot / batch number and

8.5.3.3. Component Revision Level for Flextronics customized materials or components. This should be in human readable form.

8.5.3.4. Expiration date (pre fix Z is the prefix for Lot Number with expire date, e.g. Z120315…+YYYYMMDD)

8.5.3.5. For the difference between inner box label and shipment label location, refer to figure 4 below.

Figure 4

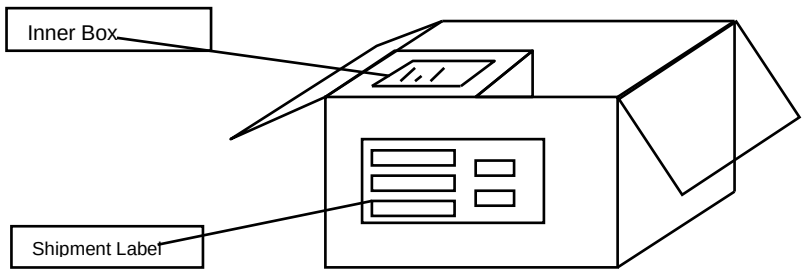


Table 3: Inner Label contents

#	Description	Required For Supplier Hubbed Part (SIC)	Required For Flextronics Parts (MRP) or Individual purchase orders
1	Purchase Order Number	**Optional**	**Yes**
2	Flextronics Part Number	**Optional**	**Yes**
3	Manufacturer Part Number	**Yes**	**Yes**
4	Description	**Yes**	**Yes**
5	Quantity	**Yes**	**Yes**
6	Date Code	**Yes**	**Yes**
7	Lot / Batch Number	**Yes**	**Yes**
8	Expiration Date	**Yes**	**Yes**
9	Corporate Trademark / Manufacturer Name	**Yes**	**Yes**
10	Country of Origin	**Optional**	**Yes**
11	Component Revision Level per 8.6.3.3	**Yes**	**Yes**

8.5.4. Inner Pack General Labeling Instructions

8.5.5. When components are purchased from Distribution, Brokerage, Flextronics sites, or Customers, factory sealed packages should not be opened unless specifically required by purchasing site or additional liability may be incurred

8.5.6. Shipping company should label product to the smallest possible factory package size, without making components Non-Cancelable Non-returnable (NCNR) or incurring liability.

8.5.7. In the event quality inspection is required prior to shipping for parts being purchased from Distribution or Flextronics, Shipper must follow guidelines for quality inspection and re-packing of components, which may require vacuum sealed packing.

8.5.8. Labeling from original manufacturers should include manufacturing part number, lot number and date code for all inner packs.

8.5.9. For chemicals indirect material content guidelines: There are presently international standard such us Globally Harmonized System (GHS) and/or OSHA (Occupational Safety and Health Administration) user guidelines available for chemicals indirect material labeling (inner packaging used in printers, wave solders, washers, rework stations, etc.). The basic information content of the label as below (Table 3) is therefore a strong recommendation that should be duly noted by the supplier. The size and layout of the label is proposed by the supplier and approved by Flextronics.

Note: For Dimensions of labels please refer to Code 128 specifications in figure 1.

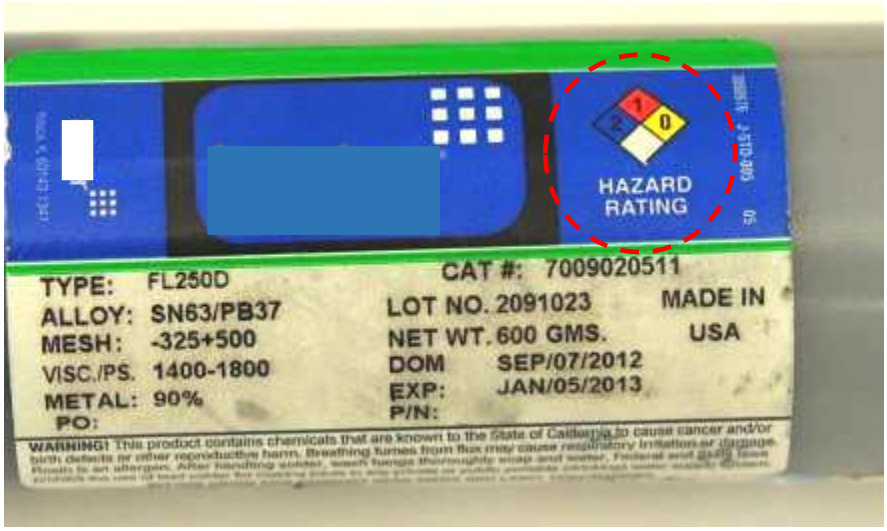
Component Sticks: On chemical containers the label shall be placed in the center of the container according to the below picture. *(Figure 5)*

Figure 5

8.5.10. Including the rhombus hazard rating icon *(Figure 6)*

It is important that in each label the rhombus of hazard rating in include it wherever the packaging size allow, if not must be on the external package/ cover, lids or in a written way. Refer to Table 3 (section 8.6.3.5) for label contents.

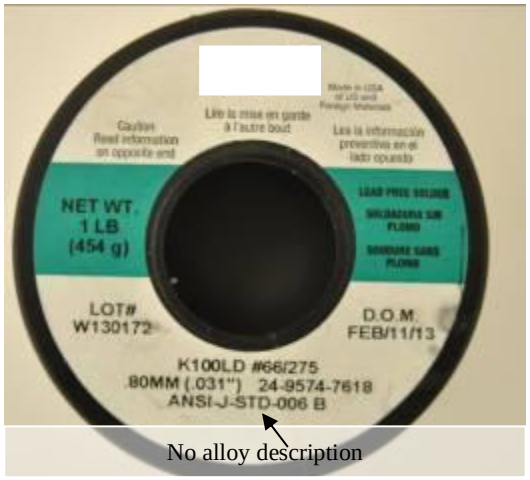
Figure 6



8.5.11. Chemical alloys description: Chemicals that has an alloy composition shall be include it / printed in a readable form within the label as part of the general information Figure 7

It is important that the label is correctly placed; otherwise the operator cannot read scanned it in the station/machine.

Figure 7



No alloy description

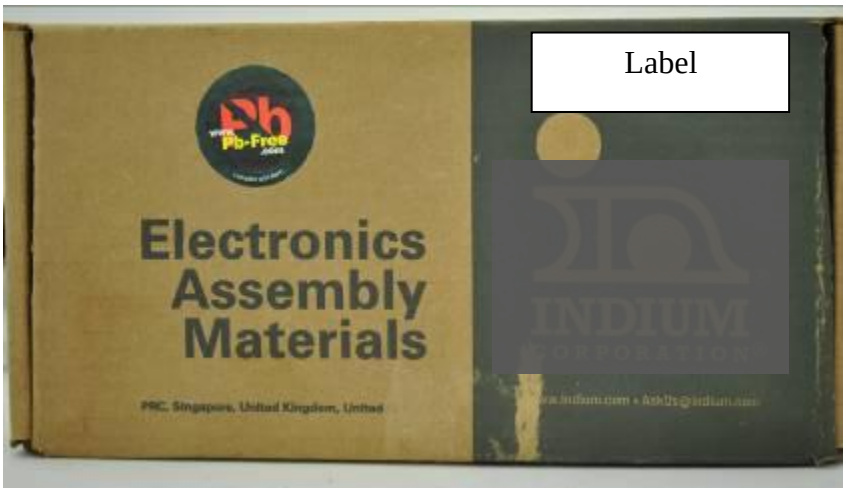
With alloy description

8.5.12. On certain packages there is no space to mark according to the description. They are then marked, if possible, on prescribed side with optional placing (e.g. on a lid, cover). If this is not practically possible the small package shall be marked with a label on the opposite side, preferably close to the edge as shown in the picture of figure 8. Refer to Table 3 (Section 8.6.3.5) for label contents.

Figure 8

8.5.13. Solder bars are normally delivered in boxes/bundles, with protective/container material e. g. corrugated cardboard around. Whenever possible, place a label is placed on the topside according to the picture of figure 9. Refer to Table 2 (Section 8.4.2.4) for label contents.

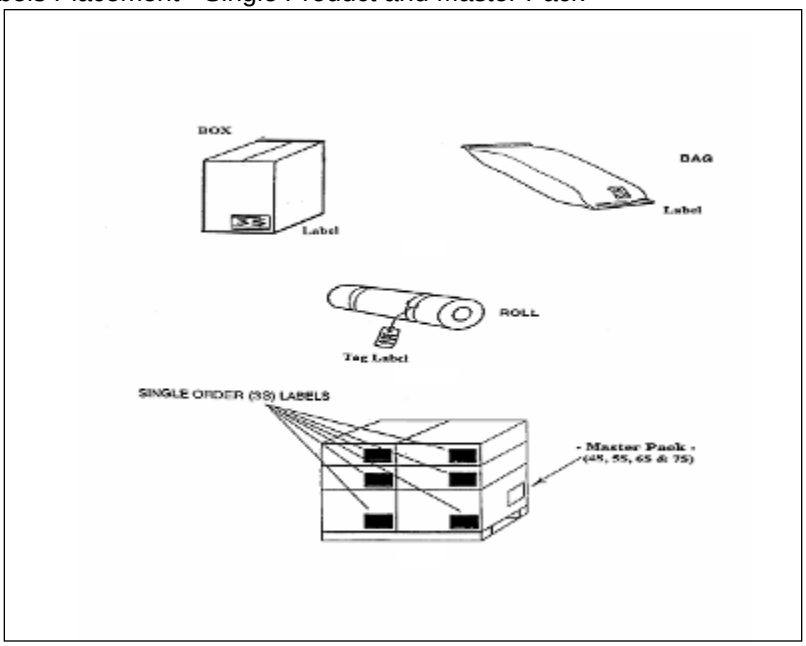
Figure 9



8.5.14. **Other Materials:** Material that is not packed as sticks or rolls is marked so that the label is as readable as possible. Placement of the label and size of the label are decided by the size and the form of the packing.

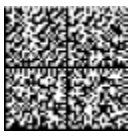
8.5.15. **Label placement:** (Figure 10) Whenever possible, the label should be affixed to the smaller end of the package or shipping container, which might be facing the aisle if the package is stored on the shelving or racks, to permit easy identification. If a label cannot be affixed because of package or container type, shape or other constraints, the label shall then be affixed to an attached tag.

Figure 10 - Labels Placement - Single Product and Master Pack



8.5.16. **2D label in small packaging:** Whenever possible, the label should have a 2D bar code, one of the most popular application for Data Matrix is marking small items, due to the code's ability to encode fifty characters in a symbol that is readable at 2 or 3 mm2 and the fact that the code can be read with only a 20% contrast ratio. The Data Matrix is scalable, with commercial applications as small as 300 micrometers (laser etched on a 600 micrometer silicon device) and as large as a 1 meter (3 ft) square (painted on the roof of a boxcar). Fidelity of the marking and reading systems are the only limitation. See figure 11 for reference.

Figure 11

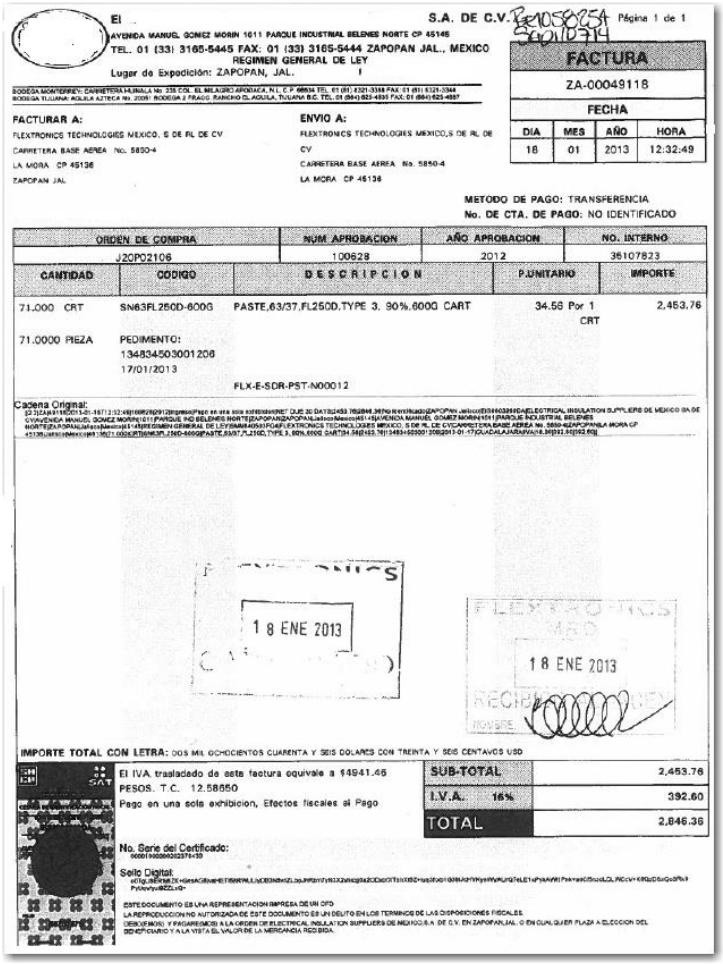


8.6. **Commercial invoices:** In several warehouses, the printout of the commercial invoice that arrives with the package is used to capture the chemical data into Flextronics MRP systems. The intent of this standard is to also identify commercial invoices with a information that meets specific requirements of the invoice plus lot number, expiration date, date code (ref. to table 2 for more reference), commercial invoices must including presenting the information on the label in both human readable and bar code forms.

8.6.1. **Print out quality:** commercial invoices must fulfill the printout quality of a label, print out must be able to allow scanning of the barcodes forms. Laser printouts or good quality printers must be used to reproduce the commercial invoices, avoid copies of poor quality that will limit the scanning of the data.

Figure 12: Common commercial invoice.

A common practice is to have only human readable characters; does data are used in the incoming warehouse to capture QTY, description price. All data is manually written in our MRP systems, where mistakes have a high potential risk.



S.A. DE C.V. Página 1 de 1

AVENIDA MANUEL GOMEZ MORIN 1611 PARQUE INDUSTRIAL BELENES NORTE CP 45145
TEL. 01 (33) 3165-5445 FAX: 01 (33) 3165-5444 ZAPOPAN JAL., MEXICO
REGIMEN GENERAL DE LEY
Lugar de Expedición: ZAPOPAN, JAL.

FACTURA
ZA-00049118
FECHA

DIA	MES	AÑO	HORA
18	01	2013	12:32:49

FACTURAR A:
FLEXTRONICS TECHNOLOGIES MEXICO, S DE RL DE CV
CARRETERA BASE AEREA NO. 5850-4
LA MORA CP 45136
ZAPOPAN JAL

ENVIO A:
FLEXTRONICS TECHNOLOGIES MEXICO,S DE RL DE CV
CARRETERA BASE AEREA No. 5850-4
LA MORA CP 45136

METODO DE PAGO: TRANSFERENCIA
No. DE CTA. DE PAGO: NO IDENTIFICADO

ORDEN DE COMPRA	NUM APROBACION	AÑO APROBACION	NO. INTERNO
J20P02106	100628	2012	36107823

CANTIDAD	CODIGO	DESCRIPCION	P.UNITARIO	IMPORTE
71.000 CRT	SN63FL250D-600G	PASTE,63/37,FL250D,TYPE 3, 90%,600G CART	34.56 Por 1 CRT	2,453.76
71.0000 PIEZA	PEDIMENTO: 13483450300120 6 17/01/2013			

FLX-E-SDR-PST-N00012

Cadena Original:

18 ENE 2013

18 ENE 2013

IMPORTE TOTAL CON LETRA: DOS MIL CUATROCIENTOS CUARENTA Y SEIS DOLARES CON TREINTA Y SEIS CENTAVOS USD

El IVA trasladado de esta factura equivale a 14941.46 PESOS. T.C. 12.58650
Pago en una sola exhibicion, Efectos fiscales al Pago

SUB-TOTAL	2,453.76
I.V.A. 16%	392.60
TOTAL	2,846.36

No. Serie del Certificado:

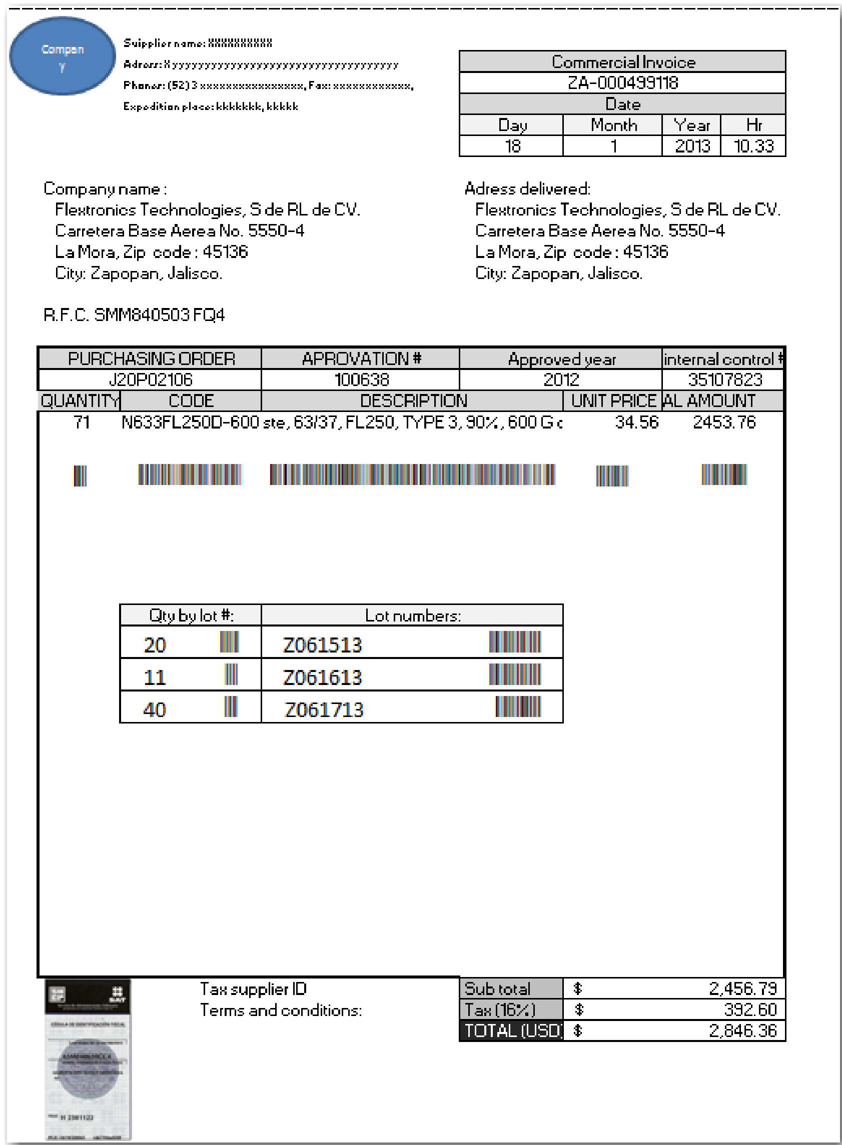
Sello Digital:

ESTE DOCUMENTO ES UNA REPRESENTACION IMPRESA DE UN CFD

LA REPRODUCCION NO AUTORIZADA DE ESTE DOCUMENTO ES UN DELITO EN LOS TERMINOS DE LAS DISPOSICIONES FISCALES.

DEBO(EMOS) Y PAGARE(MOS) A LA ORDEN DE ELECTRICAL INSULATION SUPPLIERS DE MEXICO,S.A. DE C.V. EN ZAPOPAN,JAL. O EN CUALQUIER PLAZA A ELECCION DEL TENEDOR Y A LA VISTA EL VALOR DE LA MERCANCIA RECIBIDA.

8.6.2. **Proposal format for commercial invoice** including presenting the information on the label in both human readable and bar code forms (example). Part of this policy (point 2.4) re-enforce the need to have & include presenting the information at the "commercial invoice" in both human readable and bar code forms. Adding date codes, expiration dates, as critical information of each chemical. Another approach is to have commercial invoices split it by lot number.



Company

Suipplier name: XXXXXXXXXX
Adress: Xyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyy
Phone: (52) 3 xxxxxxxxxxxxxxxx, Fax: xxxxxxxxxxxx,
Expedition place: kkkkkkk, kkkkk

Commercial Invoice			
ZA-000499118			
Date			
Day	Month	Year	Hr
18	1	2013	10.33

Company name :
Flextronics Technologies, S de RL de CV.
Carretera Base Aerea No. 5550-4
La Mora, Zip code : 45136
City: Zapopan, Jalisco.

Adress delivered:
Flextronics Technologies, S de RL de CV.
Carretera Base Aerea No. 5550-4
La Mora, Zip code : 45136
City: Zapopan, Jalisco.

R.F.C. SMM840503 FQ4

PURCHASING ORDER	APROVATION #	Approved year	internal control #
J20P02106	100638	2012	35107823

QUANTITY	CODE	DESCRIPTION	UNIT PRICE	AL AMOUNT
71	N633FL250D-600	ste, 63/37, FL250, TYPE 3, 90%, 600 G c	34.56	2453.76

Qty by lot #:	Lot numbers:
20	Z061513
11	Z061613
40	Z061713

Tax supplier ID
Terms and conditions:

Sub total	$	2,456.79
Tax (16%)	$	392.60
TOTAL (USD)	$	2,846.36

Note: Commercial invoice as example.

9.0 RESPONSIBILITY

9.1. Changes to this procedure can only be made by approval of the Global Procurement Operations Team. Request for changes can be addressed to the team by anyone using this process.

9.2. It is the responsibility of each Site / Regional / Segment Materials to provide the suppliers with latest version of "Supplier Reference Manual – Extract of Global Barcode Marking Standards Policy" – please refer to Appendix A (Section 12.1).

9.3. It is the Suppliers responsibility to acknowledge and comply with Flextronics policy on barcode marking standard.

10.0 TRAINING REQUIREMENTS

10.1. Reference to this document for the label format and specification.

11.0 KEY PERFORMANCE INDICATORS AND METRICS

11.1. % of raw materials by suppliers that fulfill this policy (by type, part number, etc.)

11.2. Flex flow EDM traceability system. This is a chemical traceability system that helps tracking and linking PCBA serial numbers with chemicals used in the manufacturing process.

12.0 ASSESSMENT OF CONFORMANCE METHOD

12.1. Internal audits (material receipt warehouse).

12.2. Ratio of manual vs. automated data captures entries.

12.3. Flex flow EDM traceability system.

12.4. Baan V with indirect SKIDs labeling data entry/integrity.

13.0 RECORD RETENTION REQUIREMENT

No	Record	Retention Period	Storage Location	Protection	Retrieval	Disposition
1.	Receipt for Chemicals	2 years from receipt date	Flex Flow and Stars with ERP System	Authorized User ID	Soft copy	Keep as softcopy

(Note: This section is Mandatory if this Policy/Process/or Procedure is related to or leads to the generation of records.)

14.0 DOCUMENT REVIEW AND APPROVAL REQUIREMENTS

14.1. This document need to be reviewed and approval on DMS system.

15.0 ATTACHMENTS/APPENDICES

Appendix A: Global Barcode Marking Standard for EDM Material (Chemicals) protected ".pdf" file for publish at Flextronics Public Internet at Supplier Information page.
http://www.flextronics.com/supplier/supplierquality/default.aspx

Global Barcode Marking Standard for