



# General Packaging Envelope Mailer Specification

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## Overview

This Specification defines the minimum packaging requirements for shipping Oracle finished goods products, to External Customers, or OCI. Specific products within scope are cables or any other miscellaneous products that have a high fragility and can survive the transportation environment without having any package cushioning and/or are not susceptible to being crushed (if packaged in an envelope mailer). When this specification applies, it will be structured to the BOM.

## Audience

Oracle Packaging Engineering, External Manufacturers (EM).

## Table of Contents

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<b>1.0 Applicable Documents</b>	<b>2</b>
<b>2.0 General Requirements</b>	<b>2</b>
<b>3.0 Korean Government Cable Packaging Requirements</b>	<b>2</b>
3.1 Packaging Space Ratio Requirements	2
3.2 Maximum number of packaging layers for Cable Products	3
3.3 PVC packaging materials are prohibited shipped into Korea	3
<b>4.0 Minimum Marking Requirements</b>	<b>3</b>
4.1 Material Identification Markings for LDPE and CFB	3
4.2 Compliance Marks	3
4.3 Material Identification and Compliance Mark Artwork and Labels	3
<b>5.0 Closure Requirements</b>	<b>4</b>
<b>6.0 Specifications for Envelope Mailers</b>	<b>5</b>
6.1 Minimum Technical Specifications for Envelope Mailers	5
6.2 Minimum Technical Specifications for Bubble lined Envelope Mailers	6
<b>7.0 Specifications for Corrugated Boxes</b>	<b>9</b>
7.1 Acceptable Corrugated Box Styles for packaging Cables	9
	11
8.0 Cable Connectors	13
<b>Document History</b>	<b>13</b>

## 1.0 Applicable Documents

All material specifications in this document shall meet or exceed the requirements established by the following reference documents.

ASTM D 882

ASTM D 1938

ASTM D 4272

Uniform Freight Classification UFC-6000-B, Rule 41, Uniform Freight Classification Committee, Chicago, Ill.

412-1186-XX Package Material Marking Artwork

425-1019-XX Packaging and Palletization Requirements for Inbound/Inter-Plant/Outbound Shipments

425-1228-XX Packaged Product Marking Requirements and Graphics Standards

914-1742-XX Oracle Global Supplier Engineering Environmental Specification – Product Compliance

923-3763-XX Oracle WWWOPS Supplier Management: Packaging First Article Inspection Reporting (FAIR)

950-1685-XX Specification for Materials used to Close, Seal and Secure a Packaging

950-3918-XX General Bagging Specification

990-1237-XX Oracle Corp: Restriction of Hazardous Substances (RoHS) Compliance and Declaration Policy

Annex A of EIA-556-B

## 2.0 General Requirements

This specification is designed to provide a basis for choosing containers that meet the minimum requirements to package miscellaneous parts or cables, as well as specifying the minimum markings that are required on the package.

Typically individual parts or cables are supplied already bagged, and in the case of cables, they are typically pre-coiled by the cable manufacturer. Whenever possible, bagged or pre-coiled parts shall be packaged without re-bagging or re-coiling. General Bagging requirements are specified in 950-3918-XX.

## 3.0 Korean Government Cable Packaging Requirements

At the time of pack-out, the final destination or customer is unknown, therefore these Korean specific packaging requirements shall apply to all cables weighing less than 300 grams.

These Korean incoming cable packaging Requirements, are subject to random Korean Government audits to ensure compliance. If any package that does not comply with these requirements below, then the Korean Government may assess an administrative fine.

### 3.1 Packaging Space Ratio Requirements

The Country of Korea requires that all incoming cable packaging, shall meet Packaging Space Ratio Requirements. Essentially the package needs to be sized large enough to fit the product, and at the same

time minimize any space, including head space, inside the package that is not required for cushioning or protection of the product.

Definition of Packaging Space Ratio:

1. Packaging ratio = (packaging space\* - product space and necessary packaging space\*)/packaging space
2. Packaging space = Dimension of the inner size of the height, length and width of the packaging
3. Product space and necessary packaging space = packaging space - (product volume + minimum space to protect and fix the product to the packaging)

### **3.2 Maximum number of packaging layers for Cable Products**

The maximum number of packaging layers for cable packaging is limited to 2 (two). The container (Envelope Mailer or box), and the bag, are considered 1 layer each, for a total of 2 layers.

### **3.3 PVC packaging materials are prohibited for shipment into Korea**

Polyvinyl chloride packaging materials are prohibited for shipment into Korea.

## **4.0 Minimum Marking Requirements**

Marking requirements may be printed directly on the packaging materials, or applied using a label (for a complete list of acceptable marking methods, see 425-1228-XX). Label stock shall match the packaging material that the label is being applied to (example, LDPE label stock shall be used when applying to the polyethylene Envelope Mailer, or Kraft Paper label stock shall be used when applied to a Corrugated Fiberboard Box).

Location of Marks, or labels on an Envelope Mailer shall be located furthest away or on the opposite end of the envelope from the opening.

### **4.1 Material Identification Markings for LDPE and CFB**

Envelope mailers and corrugated fiberboard boxes are required to have Material Identification Marking per 425-1228-XX and Oracle Artwork 412-1186-XX.

### **4.2 Compliance Marks**

Packaging containers (Envelope Mailers or corrugated fiberboard boxes) are required to have CE and UKCA Marks per 425-1228-XX.

8209639                   PKG,ART,CE,UKCA MARK

### **4.3 Material Identification and Compliance Mark Artwork and Labels**

If the 950-1419-XX Packaged Product Finished Goods Label applied to the envelope mailer is printed with the CE Mark, UKCA Mark and the Material Identification Mark (LDPE for envelope mailers, and CFB for

corrugated fiberboard boxes), then no additional Material Identification labeling is required on the envelope mailer. Otherwise the following labels and artwork can be used to comply with both the Compliance and Material Identification Marking requirements:

LDPE:

8210123	PKG, LABEL, CE, UKCA, LDPE	For use on Polyethylene Envelope Mailers
8208014	PKG, ART CE UKCA LDPE LDPE	For use on Polyethylene Envelope Mailers

CFB:

8210118	PKG,LABEL,CE,UKCA,CFB	For use on Corrugated Fiberboard Boxes
8210119	PKG, ART,CE,UKCA,CFB	For use on Corrugated Fiberboard Boxes

Whenever possible, application of labels shall not cover any printed package artwork, handling symbols or other labels.

In accordance with global restrictions on hazardous substances, all materials which comprise the label, adhesive, and ink must be compliant with 914-1742, *Environmental Specification - Product Compliance*. For more information refer to 990-1237, *Corp: Restriction of Hazardous Substances (RoHS) Compliance and Declaration Policy*. Even individual labels which do not have an Oracle part number, or which are a part of a set of labels, must adhere to these policies and specifications.

## 5.0 Closure Requirements

Envelope Mailers typically have an integrated peel and stick closure. If an Envelop Mailer is missing an integrated closure, then it can be closed and sealed using tape per 950-1685-XX.

See Oracle Specification 950-1685-XX for closure materials used to close and seal a corrugated box.

## 6.0 Specifications for Envelope Mailers

Envelope Mailers are one package container option which can meet the Korean Cable Packaging requirements.

Choose the smallest Envelope Mailer that fits the product/cable in order to meet the Packaging Space Ratio Requirements.

**ONE SIZE ENVELOPE MAILER CAN NOT BE USED TO PACKAGE MULTIPLE DIFFERENT SIZES OF CABLES – THE PROPER/MINIMUM SIZE ENVELOPE MAILER NEEDS TO BE SELECTED THAT COMPLIES WITH THE KOREAN GOVERNMENT PACKAGING SPACE RATIO REQUIREMENTS**

After the product is placed in the bottom of an Envelope Mailer, the top of the Envelope Mailer may be folded over the product to minimize any headspace in the top of the envelope before the peel and stick closure is sealed. Do not cover any of the Material Identification or Compliance marks in the process of folding and sealing the envelope mailer. Also be sure the envelope is large enough to apply shipping labels.

In addition to cables, other products which are good candidates for shipping using an envelope mailer, or bubble lined envelope mailer, are lightweight products with a high fragility and which are not susceptible to being crushed.

### 6.1 Minimum Technical Specifications for Envelope Mailers

Listed below are the minimum required specifications for Envelope Mailers.

Size	Envelope mailers come in a range of available sizes to select from in order to comply with the Packaging Space Ratio Requirements		
Material	Polyethylene		
Thickness	2.25 mil		
Tear	Machine Direction	500 grams	ASTM D1938
	Traverse Direction	1000 grams	ASTM D1938
Impact Strength	2.0 lb/lb.-f		
Tensile	Machine Direction	2500 psi	ASTM D882
	Traverse Direction	2200 psi	ASTM D882
Side Seam Strength	minimum value 5.0 lbs per inch		
Self-Seal Strength	minimum value 2.0 lbs. per inch		
Seamless bottom	envelope shall be formed out of a single piece of film, with 2 sides sealed or welded, and the 3 <sup>rd</sup> side (opposite the opening) shall be the continuous piece of film - folded in half to create the bottom of the envelope		
Color	White exterior, White or grey interior		
Closure	Peel and stick self closure		
Recycled Resin Content	25-50%		

## 6.2 Minimum Technical Specifications for Bubble lined Envelope Mailers

Listed below are the minimum required specifications for Bubble lined Envelope Mailers.

Size	Envelope mailers come in a range of available sizes to select from in order to comply with the Packaging Space Ratio Requirements		
Material	Polyethylene		
Thickness	2.5 mil (envelope, not including bubble)		
Tear	Machine Direction	500 grams	ASTM D1938
	Traverse Direction	1000 grams	ASTM D1938
Impact Strength	2.0 lb./lb.-f		
Tensile	Machine Direction	2500 psi	ASTM D882
	Traverse Direction	2200 psi	ASTM D882
Side Seam Strength	minimum value 5.0 lbs per inch		ASTM D882 Tensile Strength
Self-Seal Strength	minimum value 2.0 lbs. per inch		ASTM D882 Tensile Strength
Seamless bottom	envelope shall be formed out of a single piece of film, with 2 sides sealed or welded, and the 3 <sup>rd</sup> side (opposite the opening) shall be the continuous piece of film - folded in half to create the bottom of the envelope		
Color	White exterior, White or grey interior		
Closure	Peel and stick self closure		
Recycled Resin Content	25-50% Envelope 15% Bubble		

### 6.3 Commercially available Envelope Mailers that meet the Technical Specifications above

*Table 1.0 Sample sources for envelope mailers and bubble mailers*

COMPANY	BRAND	SIZE	INSIDE DIMENSION	PRODUCT CODE/SAP	QTY/CASE
<b>Sealed Air</b>	<b>Jiffy ShurTuff Mailer</b>	6 x 9		101089002	1000
		7.5 x 10.5		101089003	1000
		9 x 12		101089005	1000
		10 x 13		101089006	1000
		12 x 15.5		101089007	1000
		14.5 x 19		101089008	500
		19 x 24		101089009	250
		24 x 24		101089010	250
		4 X 8	3.88 x 6.75	100235135	500
		5 X 10	4.88 x 8.75	100235137	250
<b>POLYAIR</b>	<b>FASTPAK</b>	6 X 10	5.88 x 8.75	100235121	250
		7.25 X 12	7.12 x 10.75	100235124	100
		8.5 X 12	8.38 x 10.75	100235125	100
		8.5 X 14.5	8.38 x 13.25	100235122	100
		9.5 X14.5	9.38 x 13.25	100235126	100
		10.5 X 16	10.38 x 14.75	100235127	50
		12.5 X 19	12.38 x 17.75	100235128	50
		14.25 X 20	14.12 x 18.75	100235139	200
		6 x 9		FP6X9	1000
		7.5 x 10.5		FP7.5X10.5	1000

General Packaging Envelope Mailer Specification

		9 x 12		FP9X12	500
		10 x 13		FP10X13	500
		12 x 15.5		FP12X15.5	500
		14.5 x 19		FP14.5X19	250
		19 x 24		FP19X24	125
		24 x 24		FP24X24	125
	<b>XPAK POLY (Bubble) Mailer</b>	4 x 8	4 x 7	XPAK000	500
		5 x 10	5 x 9	XPAK00	250
		6.5 x 10	6.25 x 9	XPAK0	250
		7.25 x 12	7 x 11	XPAK1	100
		8.5 x 12	8.25 x 11	XPAK2	100
		8.5 x 14.5	8.25 x 13.5	XPAK3	100
		9.5 x 14.5	9.25 x 13.5	XPAK4	100
		10.5 x 16	10.25 x 15	XPAK5	100
		12.5 x 19	12.25 x 18	XPAK6	50
		14.25 x 20	14 x 19	XPAK7	50

## 7.0 Specifications for Corrugated Boxes

A Corrugated Box can also be chosen to meet the Korean cable packaging requirements.

All Fiber Optic Cables shall be packaged using a corrugated box. Fiber Optic cables are fragile and shall **NOT** be packaged using an Envelope Mailer or Bubble Envelope Mailer.

Boxes used to ship cables must have a minimum Corrugated Mullen Burst of 200 or 32 ECT



Choose the smallest available corrugated box that fits the product/cable in order to meet the Packaging Space Ratio Requirements (a bag per 950-3918 is not shown in the photo above, but is required).

### 7.1 Acceptable Corrugated Box Styles for packaging Cables

The following corrugated box styles shall be used when packaging cables. Using one of the following box styles will minimize the likelihood of a customer accidentally cutting the cable with a box-knife when cutting the box tape and opening a package.

**RSC** (Regular Slotted Container) See Figure 1

RSC boxes can be used only if the length and width dimensions are equal, so that the minor or inner flaps meet in the middle and do not have a gap between them when folded closed. Rectangular shaped RSC boxes (length dimension is > than width dimension) shall NOT be used, because the inner flaps do not meet when folded closed.

**FOL** (Full Over Lap Container) See Figure 2

**RTF** (Roll End Tuck Front) See Figure 3

**OPF** (One Piece Folder) See Figure 4

OPF boxes may be used only if AFM (All Flaps Meet)

**PPF** (Five Panel Folder) See Figure 5

**FT-DST** (Full Telescoping Design Style Tray Container – 2 piece box, bottom and telescoping lid)

See Figure 6

**Double Cap & Sleeve**

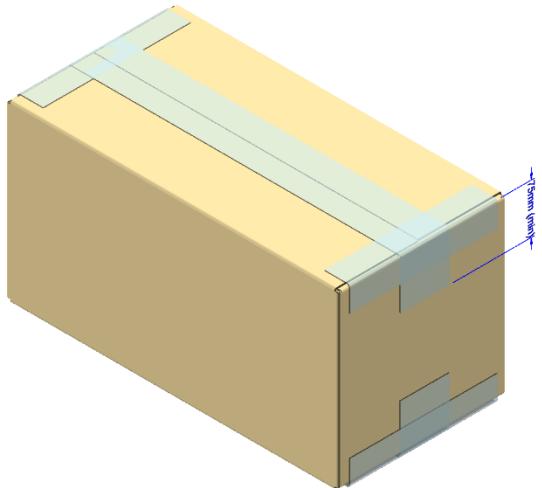
Double Cap & Sleeve container shall be used in combination with a pallet per 425-1019-XX

**D Container**

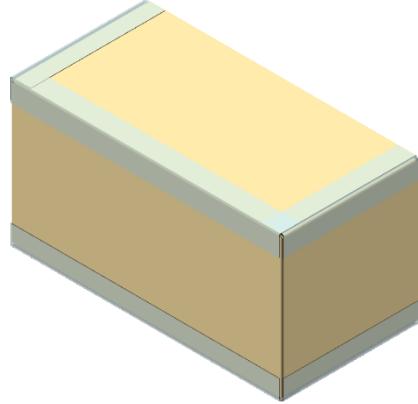
A 'D Container' shall be used in combination with a pallet per 425-1019-XX Packaging Material shall be marked per 425-1228-XX and Oracle Artwork 412-1186-XX.

Alternative Packaging Material Identification Artwork may only be used with prior written approval from Oracle Packaging Engineering.

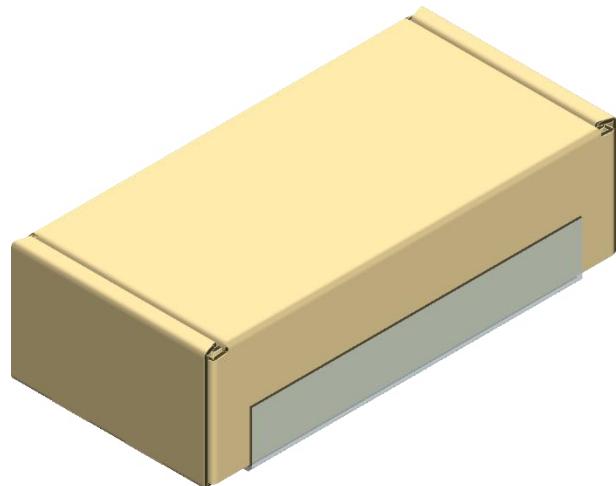
Additionally, corrugated boxes shall meet the NGA marking requirements per 425-1228-XX.



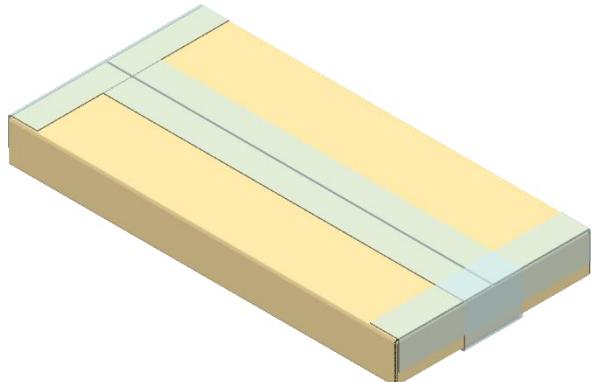
**Figure 1: RSC box**



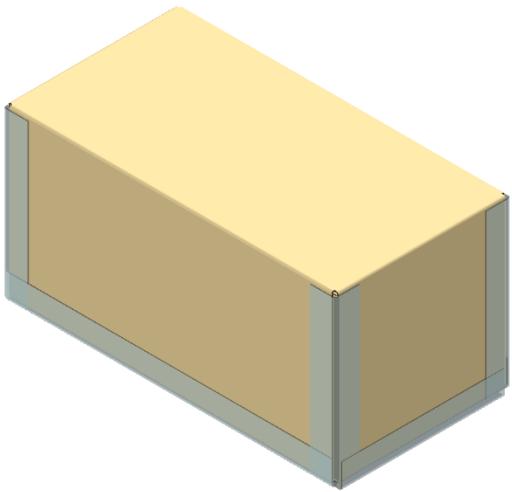
**Figure 2: FOL box**



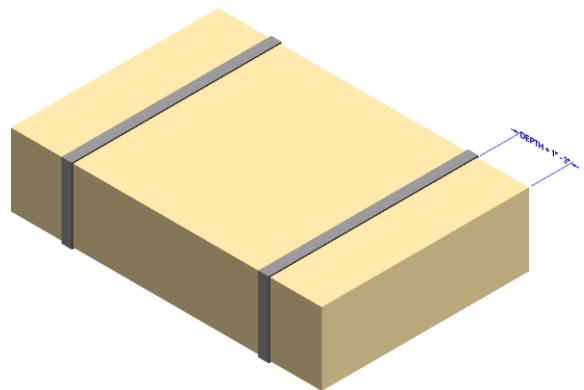
**Figure 3: RTF box**



**Figure 2: OPF box**



**Figure 5: FPF box**



**Figure 6: Band closure FT-DST**

## 8.0 Cable Connectors

In some cases, Cable Connectors may require a connector cap, connector plug, or added protection using a padded antistatic bag, or antistatic cushion material. Padded bags or cushion materials used on connectors shall only be used on an exception basis. When needed, padded bags or cushion materials shall be secured over/around the connector with plastic wrap, tie wraps or tape (tape should be applied to the wrapping/cushioning material only, and not adhered to the cable connector or the cable itself).

## Document History

DASH	REV	DATE	DESCRIPTION OF CHANGE	ORIGINATOR
02	A	05/07/2021	Initial release.	N/A
03	A	05/Mar/2022	Added Table 1.0. Updated document to Redwood format.	N/A
04	A	02/Nov/2022	Added 950-1419 Label CE, UKCA and Material ID Mark changes	N/A

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