



OZPAK

SPECIFICATION FOR PRESSURE SENSITIVE LABELS

Prepared by Wine Packagers of Australia including	Date of Issue
Barossa Bottling Services, Best Bottlers, Hunter Bottling co., McLaren Vale Bottlers, Ozpak, Portavin, Prowine, Torresan Estate & Vinpac	27 th July 2015

THIS IS A COMPLIANCE DOCUMENT FOR CIRCULATION TO CUSTOMERS, PRINTERS AND SUPPLIERS OF LABELS. PLEASE MAKE SURE THE APPROPRIATE PEOPLE IN YOUR COMPANY ARE GIVEN A COPY OF THIS DOCUMENT.

A. PURPOSE

To inform customers, label designers, printers and suppliers of Ozpak's Specification to ensure that supplied pressure sensitive labels are of a size and quality capable of being applied mechanically on our automated bottling lines.

B. GUIDANCE

Our experienced staff are available to answer any queries regarding the contents of this Specification. They can also assist with design concepts and, where necessary, organise trials of labels to ensure satisfactory results prior to bottling.

The Label Size Graphs (attached as Appendix A) has been produced as a measurement guide for the seven most popular 750ml bottle styles (Super Premium Claret, Premium Claret, Lightweight Claret, Punted Burgundy, Sparkling, Premium Burgundy and Austral Skittle). With the exception of the Austral Skittle, these bottle styles are produced by both Orora and O-I glass manufacturers, and each bottle label panel dimensions differ by manufacturer.

The Label Size Graph uses the lesser dimensions for each bottle shown and should be used as a measurement aid when designing labels. In our experience, labels that fit within the sizes shown are the most appropriate for Ozpak's automated bottling lines. We encourage customers to contact Ozpak's Customer Service Manager to ensure they receive the correct dimensions of any bottle they intend to use.

We understand customers may prefer larger labels for particular products. To assess whether these can be applied successfully on our automated bottling lines, we recommend that sizing is advised early in the design stage to assess and, where necessary, arrange for trials to be organised prior to the actual bottling date.

The Neck Labels Diagram (Attached as Appendix B) shows examples of neck label shapes. Label designers are responsible for shaping and sizing neck labels to fit the specified application height, bottle neck shape and closure being used (screw cap, crown seal or sparkling hood).

All queries regarding the requirements of this Specification should be directed through Ozpak's Customer Service Manager.

Note: The scale of the graph and diagrams when printed is dependent on the accuracy of the printer being used.

C. RESPONSIBILITY

It is the responsibility of customers, their label designers and printers to:

Ensure labels provided to Ozpak are manufactured with reference to the information contained in this Specification and be fit for purpose.

Collaborate, select and use the most suitable paper types, varnishes and adhesives for their intended label requirements and expectations. Labels must perform on Ozpak automated bottling lines and successfully adhere with minimal lifting or bubbling when exposed to various temperatures and humidity from the warehouse to the ice bucket.

It is strongly recommended that customers check and approve labels at their printer's premises or receive samples for approval prior to delivery to Ozpak. Labels should be delivered to Ozpak at least 3 working days before the scheduled bottling date. All labels should be used within the suggested label expiry date.

D. REQUIREMENTS

This section sets out label requirements for application on Ozpak's automated bottling lines. We understand that from time to time our customers will have labels that do not meet all of these requirements and we will work with you to achieve best application results.

Printers or the suppliers of labels are required to issue an electronic copy of approved, final artwork in PDF format for each label supplied, displaying colour, label size, die gap, paper stock and adhesive used. This PDF must be sent to Ozpak's Customer Service Manager well before the scheduled bottling date.

If paper stock and adhesive is not noted on the PDF a Quality Assurance report to state this information is required.

1. Automated Application Capabilities

A maximum of 4 labels can be applied by automated application, eg:

3 front labels (eg front, neck and medal) and 1 back label

2 front labels (eg front, neck or medal) and 2 back labels

2. Paper Weight

- (a) Body labels require a minimum paper weight of 80gsm and a maximum paper weight of 135gsm (grams per square meter), or as recommended by Avery Dennison, Spicers or UPM Raflatac - see appendices D, E and F.
- (b) Neck labels require a low memory, cast coated or machine coated face stock with a paper weight of 60-80gsm with an aggressive adhesive and high initial tack (80gsm cast gloss RP3N Raflatac neck is guaranteed by the supplier).

Label Design

- (a) Special care is required when choosing wine labelling papers, as some stocks can be thick and absorbent, or highly embossed making them stiff. If an open weave paper is to be used then we recommend one with a low COBB value to reduce the risk of bubbling/lifting. It is also essential that the surface area of the paper stock is sufficiently sealed with moisture repelling varnish.
- (b) The use of under laminates is recommended for products that require refrigeration.
- (c) Heavy embellishment or embossing can reduce the adhesive bond area of a label to the glass. The greater the extent and depth of the embossing, the greater the chance of failure.
- (d) Labels that have all over emboss/graining/embellishment must have a 3mm emboss free zone measured from each label edge to aid adhesion and help prevent label lifting from the glass post bottling. In the event that there is not a minimum 3mm emboss/grain free zone Ozpak cannot guarantee that there will not be lifting issues. Emboss free zones do apply to laid papers.
- (e) Foil stamping can stiffen the label and reduce adhesive contact with the glass, making the label lift from the bottle after it has been applied.
- (f) High glossed/reflective metallized labels will highlight all minor irregularities in the glass surface, e.g. bottle seams etc.
- (g) Please discuss foiling or metallized labels with your Account Manager before design work and print to ensure best results are obtained at time of bottling.
- (h) Permanent adhesives with high initial tack (bond) must be used and be compatible with condensation on glass.

Summary - The main causes of label lifting or bubbling/creasing of labels are:

- Paper stock over 135gsm
- Open weave paper (uncoated and matt)
- Excessive emboss/embellishment
- Foiling/metal finish
- Bottle sink and bulge

Note: Evidence of lifting or bubbling becomes apparent after bottling.

3. Label Size

4.1 Body labels

- (a) The Label Size Graphs (attached as Appendix A) has been produced as a measurement guide for the seven most popular 750ml bottle styles (Super Premium Claret, Premium Claret, Lightweight Claret, Punted Burgundy, Sparkling, Premium Burgundy and Austral Skittle). With the exception of the Austral Skittle, these bottle styles are produced by both Orora and O-I glass manufacturers, and each bottle label panel dimensions differ by manufacturer.

The Label Size Graph uses the lesser dimensions for each bottle shown and should be used as a measurement aid when designing labels. In our experience, labels that fit within the sizes shown are the most appropriate for Ozpak's automated bottling lines. We encourage customers to contact Ozpak's Customer Service Manager to ensure they receive the correct dimensions of any bottle they intend to use.

- (b) If your label does not fit into the dimensions shown in the Label Graph we recommend that we are advised early in the design stage so that we can offer our assessment before print and/or organise trials well before the actual bottling date.
- (c) Minimum label height is 12mm.
- (d) The requirements for 375ml, 180ml and other size bottles are varied and therefore all labels must be assessed and, where necessary, undergo trials prior to the actual bottling date.

4.2 *Neck labels*

- (a) Our Neck Labels Diagram (Appendix B) shows examples of neck label shapes. Label designers are responsible for shaping and sizing neck labels to fit the specific application height, bottle neck shape and closure being used (screw cap, crown seal or sparkling hood). A sample bottle with closure being used should be supplied to your designer. For sparkling wine, it is important to let the designer know what length of hood is to be used ie 122mm or 95mm or 90mm or 80mm).
- (b) A reverse glue flap (RGF) of 15mm minimum, free of varnish with a smaller non inked area on left hand side of the under lapped label area is required to aid adhesion.
- (c) Minimum label height is 18mm.
- (d) In the event that the neck label does not meet the specifications above Ozpak cannot guarantee adherence.

4. Positioning of labels on bottles

5.1 *Body labels*

- (a) Our guidelines for placement of standard size body labels on 750 ml bottles are:
- (b) Minimum 60mm gap between front and back label (30mm left and 30mm right).
- (c) Minimum 30mm gap for wrap-around labels. Due to the complexity of wrap around labels we suggest we are involved early in the design stage to assess and, where necessary, arrange for trials to be organised prior to the actual bottling date.
- (d) Bottom of the label must be a minimum of 5mm above the bottom of the glass panel specification and a minimum of 5mm from the top of the glass specification label panel. The maximum label height including any label medals affixed to the top of the label must be 10mm less than the height shown on the glass specification label panel. In the event that the label and/or medal affixed at the top of the label exceed the sizing specified above it is likely to result in creasing and flaring of the label. This does not mean a label and/or medal affixed at the top of label cannot be applied without this occurring but does mean significantly longer set up times, roll change over times and slower line speeds to reduce the possibility of creasing or flaring. Ozpak's down the line fees are calculated based on set up times, roll changeover times and line speeds for labels that fall within the specifications described in the first paragraph of this section.

Please also note that with wrap around labels that the vertical deviations are approximately 1% of the width of the label between its two edges – thus for a 180ml wide wrap around it can be out of vertical by 1.8ml – this is based not only on the experience of the W.P.A. members but has also been verified by CETIE Europe in partnership with the French Pressure Sensitive Label Association (Union Nationale des Fabricants d'Etiquettes Adhésives).

Ozpak's line speeds can be decreased significantly with oversize labels and/or oversized label/medal combinations and can have much longer set up and roll changeover times. This does not mean that Ozpak will not be prepared to apply oversized labels or oversized label/medal combinations but cannot guarantee that there will not be creasing or flaring.

In most cases we believe the simple solution is to marginally reduce the height of the label and look at placing medals on the side of the label panel instead of the top.

Subject to discussion with individual customers, Ozpak will need to apply a surcharge on its down the line fees for oversized labels and/or oversized label/medal combinations to compensate for the longer set up and roll changeover times and the slower line speeds.

- (f) The requirements for 375ml, 180ml and other size bottles are varied and therefore all labels must be assessed and, where necessary, undergo trials prior to the actual bottling date.

4.2 *Clear labels*

Clear labels require a solid ink mark/block of colour (minimum of H10mm x W6mm) for reliable detection.

The registration mark/block of colour (minimum of H10mm x W6mm) can often be found in the label graphic. However, those labels which do not include a square opaque mark, particularly on clear labels on clear webbing, require a registration mark (minimum of H10mm x W6mm) printed on the reverse side of the webbing. This provides a robust orientation mark while leaving the label area unmodified.

In the event that there is not a registration mark/solid block of colour (minimum of H10mm x W6mm) on the label or a registration mark (minimum of H10mm x W6mm) on the backing paper this can result in significantly longer set up and roll changeover times and slower line speeds and there is no guarantee that Ozpak can correctly apply the label.

5.3 *Neck labels*

- (a) *Placement of neck labels must be assessed individually to ensure that the size and shape are correct for the selected bottle.*

5.4 *Medals and Buttons*

- (a) Due to the diversity of where medals can be placed within the label panel, we recommend that positioning of these is discussed with Ozpak's Customer Service Manager well before the due bottling date to ensure we can achieve the desired position and that it can be applied using our automated bottling lines. We will need a visual of the medal and the required position in relation to the body label and bottle. Hand labelling is available where the position of a button or medal label is outside of our criteria.

5. Gap, Squareness & Lift & Fall Movement Tolerances

	GAP	LIFT & FALL	SQUARENESS
FRONT & BACK LABEL GAP	Plus/Minus 4mm	Plus/Minus 2mm	Plus/Minus 1mm
FRONT OR BACK LABEL	N/A	N/A	Vertical deviations are approx. 1% of the width of the label between its two edges
NECKS ON SCREWCAP	N/A	Plus/Minus 2mm	Plus/Minus 1mm
NECKS ON HOODS	N/A	Plus/Minus 2mm	Plus/Minus 1mm
NECK LABEL TO BODY LABEL ALIGNMENT	Plus/Minus 5mm	N/A	N/A
GLASS PANEL HORIZONTALITY	N/A	N/A	Can be up to plus/minus 3mm

Please contact your accounts manager for any clarification required on the above tolerances

6. Body and Neck/ Medal Label Roll Diagrams

- (a) The Label Roll Diagrams (Appendix C) provides a visual of dimensions, weight, die gap, and webbing information for both body and neck/medal labels. Common specifications for both diagrams are:
- All label rolls to be supplied as industrial standard unwind left hand lead
 - PET webbing is recommended to reduce breaks during the labeling process..
 - The distance between labels (die gap) on the webbing must be consistent across all label rolls (minimum 3mm maximum 15mm) to assist with satisfactory label application on our automated bottling lines.
 - The webbing height must be greater than the size of the label. We recommend a minimum 2mm and maximum 5mm (with a variation of no more than +/-0.25mm across the label run.) This webbing distance must be consistent across all label rolls.
 - Maximum label roll weight 8kg and individual carton weights no greater than 16kg
 - All label converting waste (eg matrix waste) must be removed from webbing ready for automated application.

6.1 *Body Labels*

- (a) Front and back labels must be supplied on separate label roll
- (b) Label roll size maximum 380mm. The minimum size is 2,000 labels per roll
- (c) Core width 76mm I.D – height to be 2mm less than the label roll ie core must not protrude

6.2 Neck and Medal Labels

- (a) Neck and medal labels can be supplied on the same roll
- (b) Label roll size maximum 300mm. The minimum size is 2,000 labels per roll
- (c) Core width 76mm I.D. – height to be 2mm less than the roll ie core must not protrude
- (d) The inside and outside of each label roll should contain the following information:

Label Printer's name	Production Date and use by Date
Ozpak Product Code	Barcode
Job/batch number	Quantity of labels per roll

E QUALITY ASSURANCE

7. Scuff and Rub

- (a) Labels must pass a scuff test of 2,000 rubs using 1.8 kg load with cardboard divider or carton board as the test strip. For method refer to Australian Standard AS2313.4.3-2006 *Printing properties – determining abrasive resistance*.
- (b) Labels must pass bottle on bottle (label to label) rub test where labels must not scuff. This is to ensure that labels will not be compromised when travelling along the bottling line and during transportation in cartons with no dividers.
- (c) Labels must pass an adhesive tape peel test (refer FTM21-FINAT Test Method No 21 – ink adhesion) where neither ink nor varnish lifts from the label when pressing adhesive tape on to the label surface then removing it.

F. LABEL QUANTITY CALCULATION

The table below shows minimum number of labels (body, strip and medals) required based on bottling run size (eg 5,000 x 12.1 = 60,500 labels for a 5,000 dozen run size)

Bottling Run (doz)	No of Labels Required (per doz)
0 - 500	13 labels
501 - 1999	12.5 labels
2000 - 2999	12.20 labels
3000 - 3999	12.20 labels
4000 - 4999	12.13 labels
5000 plus	12.10 labels

Ozpak recommends an additional 100 sets of labels be provided for every new design or where a label design has changed (including size/shape). This is to cover expected set up requirements.

G PACKING AND DELIVERY

All label deliveries into Ozpak are signed for in good faith. The number of cartons delivered and the quantities stated on the outside of the cartons are checked against the delivery docket after delivery. Signing the delivery docket is not confirmation that the quantities on the label rolls delivered are as stated.

H SUSTAINABILITY

As part of Ozpak's sustainability objectives, we request that, where practical, dry goods are made with materials that are recyclable and packed using recyclable materials.

I GLOSSARY

Term	Explanation
Pressure sensitive labels	Also known as self-adhesive, these labels form a bond when pressure is applied to marry the adhesive with the bottle surface
COBB value	Rate at which paper absorbs water from its surface. For best moisture protection the lowest possible COBB value is required
Matrix	Waste webbing that is stripped/removed by the label printer for label machine application
Die gap	The space between labels on the webbing
PET backing or film	Clear polyester material