

**Prepared By:** Vinpac International's Quality Assurance Team

**Date of Issue:** 1 June 2016

This is a compliance document for circulation to customers, manufacturers and suppliers. Please make sure the appropriate people in your company are given a copy of this document.

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### **Purpose**

The purpose of this specification is to ensure that supplied cartons are capable of being used on Vinpac's automated bottling lines

### **Guidance**

Our experienced staff members are available to answer any queries regarding the content of this specification and can also assist with design concepts.

All queries regarding the requirements of this specification should be directed through the customer's Account Manager.

Where a carton has not been previously used at either of our sites, Vinpac encourages trials prior to bottling to confirm we can achieve a mechanical application on our automated lines.

### **Responsibility**

Customers must ensure that corrugated and preprint fibreboard cartons provided to Vinpac are manufactured with reference to the information contained in this Specification and conform to the requirements of AS 3537-2006.

## Requirements

Technical drawings and application specifications must be supplied in PDF format to your Account Manager at least 28 days before the scheduled bottling date.

**⚠** All new cartons must be size checked and signed off by the Vinpac QA Packaging Department prior to production.

The manufacturer/supplier shall maintain pest control and a quality management system within their production facility.

Where customers require extra text to be printed on the carton at the time of bottling, the following design limitations apply:

- Two lines of text at 32 characters per line
- Print cannot be applied lower than 30mm up from the base of the carton

In order to ensure ink jet printing can be applied to the cartons, a varnish and ink free section suitable for the imprint must be left on the printed area.

Vinpac has two on-line printers on each bottling line and text can be applied to ends or sides in any combination (i.e. both ends, both sides or one side and one end).

## Criteria and Tolerances

**Quality Levels:**      **Critical Class A non-conformance AQL 0.5%**  
                                  **Class B non-conformance AQL 1.5%**  
                                  **Class C non-conformance AQL 4.0%**

Specification	Non-Conformance Classification
<b>Dimensions (Refer Appendix 2)</b>	
Panel sizes of $\pm 1$ mm with no more than 3mm accumulated.	A
Slotting position $\pm 3$ mm from the centre of crease and clean cut slots.	B
Under/oversize slotting $\pm 2$ mm unless specified.	B
Height $\pm 2$ mm.	A
Centre of slot to line up (same plane).	B
No evidence of torn edges of board as the result of blunt cutter blades.	B
Gap measurements on assembled carton 4mm with $\pm 3$ mm tolerance.	B
<b>Board Material</b> - The flute grade is to be specified at the time of purchase and conform to:	
Flute B thickness 2.4mm to 3.2mm.	C
Flute C thickness 3.4mm to 4.2mm.	C

Laydown cartons to be formed using a "C" flute board grade.	C
Board materials in excess of this specification must undergo a trial to ensure they can be assembled on Vinpac's automated bottling lines.	
<b>Crush</b> - Caliper retention shall be a maximum crush from start of finishing machine to finished product.	
Overall non-print area - 0.08mm.	C
Printed area - 0.2mm.	C
Pull straps, folding belts - 0.25mm.	C
<b>Delamination</b>	
Not more than 1 in 10 flute tips shall be un-bonded.	C
Fibre tear is to be present on separation of liner.	C
A maximum of 6mm is allowable for edge delamination.	C
Misalignment of papers is a maximum of 6mm for the inside liner and 0mm for the outside liner.	C
<b>Creasing</b>	
All creases (including corrugator scores) are to be straight and well defined.	B
There shall be no evidence of cracking on the outside liner.	B
Pre-print scores may have minimal cracking, but should not peel.	B
Corrugator scores are to show no signs of cracking when folded 90 degrees.	B
Internal corrugator scores and die cut creases shall have no more than 50% of creases with cracks and no more than half any crease having signs of cracking.	C
<b>Print Quality</b>	
Print detail and colours to be the same as the approved proof. The print colours shall be matched as close as the flexographic process allows to Standard PMS colour charts. Supplier shall apply a standard colour range.	B
Print registration $\pm 2$ mm for each colour.	B
$\pm 3$ mm registration print to each box.	B
Pre-print to die cut register $\pm 3$ mm.	B
Pre-print colour to colour register $\pm 1$ mm.	B
Belt marks and smudging of print will be minimised.	B
No block print on 'C' flute cartons.	A

<b>Pre-Print/Lithographic Carton Design</b>	
Product code, bottle and divider information, and supplier logo with date and shift stamp, to be on the inside base of all cartons unless otherwise specified.	A
Recycle logo to be on the top flap of all cartons unless otherwise specified.	A
Vinpac require that the contents be printed both ends i.e. 12x750ml with the glass and arrow pointed upwards.	A
Gloss varnish as specified by the customer; however there shall be no gloss finish or ink on the internal flaps or glue sealing surfaces to compromise carton sealing.	A
<b>Glue Flap</b>	
Cartons must be cut with the glue flap to the left of the largest panel with print leading left to right.	A
Cartons stuck together preventing cartons from being formed in Vinpac's carton erectors is classified as a major defect.	A
Application of the glue to be 70% width of glue flap and 90% length of glue flap when compressed.	A
Correct type of glue to be used to ensure bonding. Paper tear must be evident when box is pulled apart to ensure carton is suitable for use.	B
Fishtailing – there shall be no more than 3mm variation between top and bottom of glue flap gap (Refer Figure 2 Appendix 2)	B
Glue gaps B and C flute 6mm $\pm$ 3mm	B
Width of glue flap (minimum) 28mm	B
Top and bottom long flaps are to have a 4mm gap when closed $\pm$ 2mm.	B
<b>Carton Blank Warp (refer Appendix 1)</b>	
The maximum allowable warp of the die cut carton blank is 2% of the length (or width). The warp is defined by the relationship $U/L \times 100$ , where U is the arch height and L is the length of the blank.	B
<b>Presentation (Refer Appendix 3)</b>	
Refer Appendix 3 for presentation requirement for mechanical use at Vinpac – Left hand presentation required.	A
Each carton to be presented in the same direction and side up in the bundles.	A
Cartons to be supplied in bundles of 25 unless otherwise specified.	B
Bundles to be strapped together using correct tension to not deform or damage cartons.	A

Bundles must not be wrapped or packed into cartons as this will incur extra costs.	A
<b>Handling and Storage</b>	
Handle in such a manner that no damage occurs.	B
Pack and store horizontally on pallets ensuring protection (using scrap cardboard) top and bottom of pallet.	A
Use pallet types as specified in agreement with Vinpac.	A
Pallets are to be neatly and squarely packed. There may be slight overhang depending upon carton design and pallet pattern. Adequate protection must be provided where overhang exists.	B
A display tag representative of the production run and a ticket corresponding to the job shall be visible on fork lift entry.	B
Protect cartons from strapping by using scrap cardboard under corners to ensure no damage or denting to cartons.	B
Strapping to be made from recyclable material and closed using heat seal method.	B

### **Packing and Delivery**

Detailed information on the packing and delivery of dry goods is contained in SU-009 – Vinpac Specification - Dry Good Packaging and Delivery Requirements.

### **Recycled Material and Packaging**

As part of Vinpac's sustainability objectives, where practical cartons shall be made using recyclable or recycled materials, packed using recyclable materials and all packaging materials minimised.

### **References**

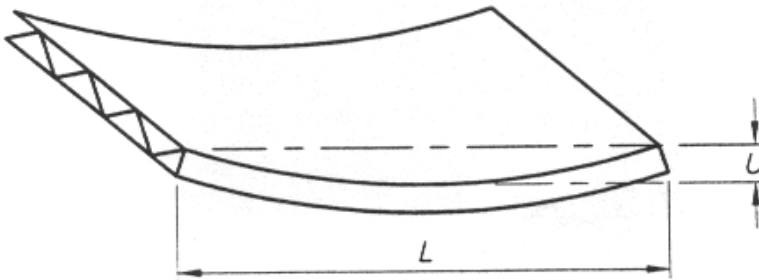
AS 3537 – 2006 Specification for general purpose corrugated fibreboard cartons and blanks

AS 1199.0 – 2003 Sampling procedures and tables for inspection and attributes

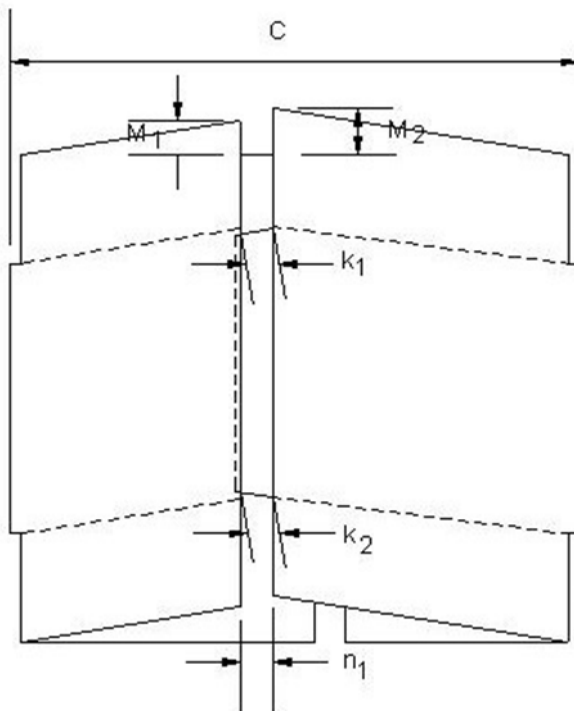
Winemakers Federation of Australia – Wine Packaging Guidelines November 2010

[www.wfa.com.au](http://www.wfa.com.au)

**Appendix 1 – Allowable Warp of Die Cut Carton**



**Appendix 2 - Measurement of Slotted Cartons**

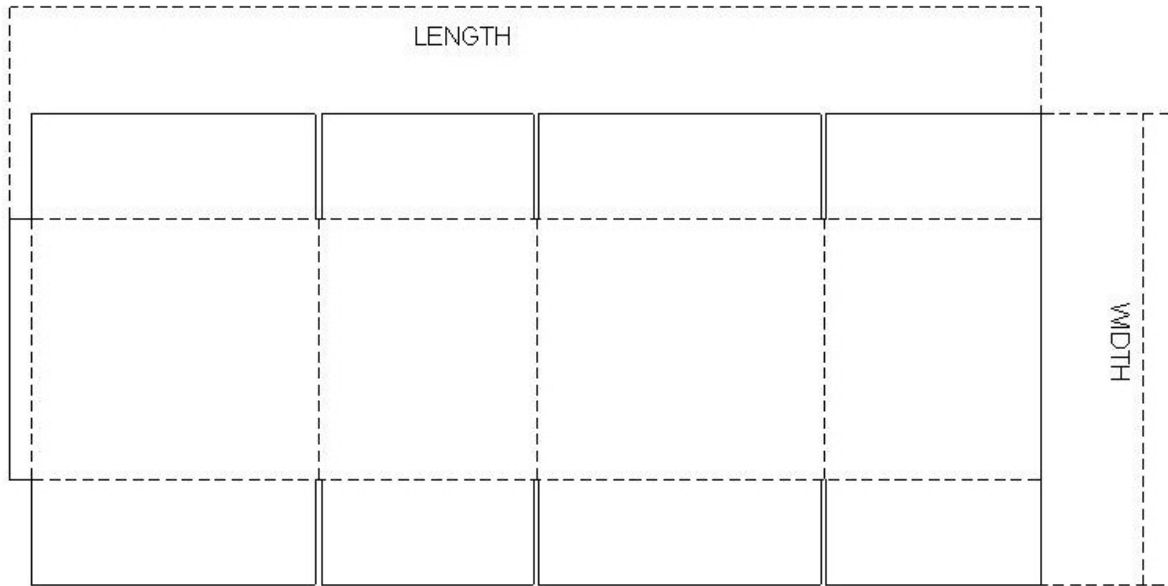


**LEGEND:**

**C** = length of knocked-down box  
 **$k_1$  and  $k_2$**  = gap at manufacturer's joint at score lines  
 **$k_1 - k_2$**  = fishtailing  
**Difference between  $m_1$  and  $m_2$**  = misalignment (out of squareness)  
 **$n_1$**  = minimum gap at flap extreme.

**Scoring Allowances**

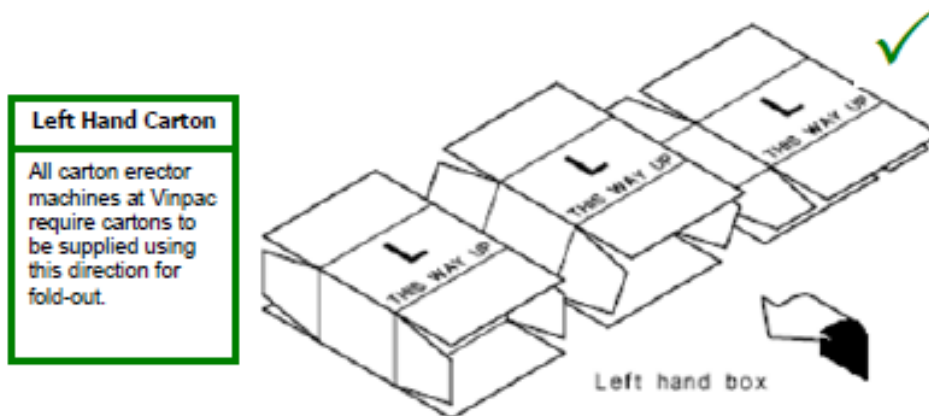
B Flute - width +3, length +3, depth +6  
 C Flute - width +5, length +5, depth +8



Key Scores -----

## Appendix 3 – Carton Presentation

Cartons **MUST** be presented this way when supplying Vinpac International:



Cartons **cannot** be presented this way when supplying Vinpac International:

