

# Alternative Packaging FAQ Sheet

The below methods of packaging were presented by industry experts to a webinar held by New Zealand Winegrowers and WineWorks in May 2024 as a way to disseminate factual knowledge about the alternatives to glass that are available in the New Zealand market. They are not 'alternative' packaging as such, merely ways to access different markets that have different features.

The environmental impact claims below are all representative, and include all forms of sustainable winegrowing that are endorsed by Sustainable Winegrowing New Zealand (SWNZ), not just carbon footprint. Energy consumption, water consumption, waste buildup and CO2 emissions are all important. These claims are of course the view of the speaker alone, so are not fully accurate or based on life-cycle analysis, however they can be accepted as all being lower-carbon footprint methods of packaging than single-use glass, although the full life-cycle analysis was not discussed.

This FAQ also starts each item with a single-sentence USP (Unique Selling Point) that describes each product's benefit.

## Wine in cans

Chris Archer

**USP:** Cans offer a small format for the wine industry that looks after the wine similar to a screw cap glass bottles. They are also cost-efficient, using existing infrastructure with a market that trusts in the packaging due to their use in other beverages categories.

### Shelf Life:

Joiy's experience is that we have wines that age to our expectation with Sulphur Dioxide and flavour development across the full spectrum of wine styles. We have used cans solely since 2017.

The **energy cost** to make from mined bauxite 3 x250ml cans is equivalent in making 1\* 400g light weight bottle. No fossil fuels are used in the making or the recycling of the Aluminium, and there is a 40% fuel reduction in all freight due to small package size.



### What about recycling?

75% of all Aluminium in the world is recycled. This is because it has a high scrap value as well as showing an energy saving incl freight to recyclers. To recycle 1 \* 400g Bottle we can make 103 recycled \*250ml cans (incl recycling transport-Norway return).

The epoxy liner is destroyed in the recycled process and hence limits its negative effects on the environment. The weight of recycling cartage is the lightest of all materials

## Packamama

Santiago

**USP:** Packamama's eco-friendly flat-pack wine bottle is a sustainable and space-saving alternative to traditional glass bottles.

### Shelf Life:

Being made of PET, shelf life is shorter, but this is controlled by the additives to the rPET.



**Sustainability:** The energy cost of Packamama is claimed to be lower than all other competition, and Santiago showed a Life-Cycle-Analysis study done by Tetrapak for the Australia/New Zealand market to back this up.

#### What about recycling?

These bottles are made from rPET – i.e. 100% of the raw material is recycled feedstock. This is a big difference between Packamama and others claiming to be ‘recyclable’. Pet is commonly recycled, but most of it finishes as waste.

The **closure** is the polyester [Novatwist](#) screwcap.

**Contact:** [santiago@packamama.com](mailto:santiago@packamama.com) | [www.packamama.com](http://www.packamama.com)

## Frugalpac

Ciaran Dickson

**USP:** The Frugal Bottle, made from 94% recycled paperboard with a food grade pouch, is five times lighter than glass, has six times lower carbon footprint and offers 360 degree branding for exceptional shelf stand-out.

**Shelf Life:** 12-18 months

**Sustainability:** The carbon footprint of the Frugalpac bottle is six times lower than a standard glass bottle.

#### What about recycling?

The outer card is easily separated by a pressing a button that opens the card up to release the inner bag, which can be recycled separately.

**Branding:** The 360 degree branding area allows a good shelf presence.

The **closure** is an aluminium ROPP screw cap of 30x21mm dimensions. Given the capping top load of 80kgf, and the bottle is only able to withstand 20kgf, it is necessary to support the bottle by the neck ring during the capping application.

**Contact:** [ciaran@frugalpac.com](mailto:ciaran@frugalpac.com) | [www.frugalpac.com](http://www.frugalpac.com) or their NZ agents, Punchbowl Packaging.



## Bag-in-Box

Matt Dicey

**USP:** A familiar format to many, and being a larger volume format has less packaging weight/footprint etc. than many 330-750ml formats.

#### Carbon Footprint:

Approx. 1/10<sup>th</sup> of the carbon footprint of lightweight glass.

**Shelf Life:** The wine stays fresh once opened for at least a month.

Currently using one year best before date but wanting to push this out to 18 months with our new recyclable lower Oxygen Transmission Rate (OTR) bags. Matt uses a free SO<sub>2</sub> of about 40 to achieve this.

**Bags:** The old gold standard for bags was the Met-PET bags, however newest recycle ready bags have an OTR that is a quarter of the Met-Pet bags. Fitment is also recyclable. Bags come from Sealed Air (Used to be Liquibox, Auckland, now Thailand). Minimum order quantity: 10,000 bags.

**Branding:** Branding and box design was done by in-house. Boxes are



produced by Graphic Packaging. The box needs 2.3 litres of space to accommodate 2 litres of wine.

**Cost:** Matt was one of the few who shared cost, which was \$1.50 for the box, bags with fittings \$2.10, and other packaging, shipping etc. about \$1.00.

**Process:** The filling happens by nitro-purging the bag, then evacuating it before filling with wine. The manual rate is about 1,500 litres per day.

**Contact:** [jim.conroy@wineworks.co.nz](mailto:jim.conroy@wineworks.co.nz) | 0274 492 999 | [www.wineworks.co.nz](http://www.wineworks.co.nz)

---

## Refillable glass – Neil Pollett

**USP:** The key benefit is a huge saving in carbon emissions vs the same container being recycled and used once. Added benefits are less glass being landfilled and new local jobs created + community support.

**Bottle:** The initial standard bottle will be the standard VISY 417 lightweight burgundy bottle. This has been extensively tested in Germany.

The sustainability values of refillables are much higher than all the above, because the package is not being remanufactured – there is only washing and a new label. There is up to 95% saving in carbon emissions vs the same container being remanufactured.

The more refills, the lower the carbon cost, and it does not contribute to the waste stream.

**Cost:** Indicative price at this stage has refillables at 10-20% below new glass price.

**Washing:** The washing process requires different labels to be used that wash off in the high-temperature cleaning process. There is then a machine inspection process to ensure the glass is functional.

**Contact:** [neil.pollett@xtra.co.nz](mailto:neil.pollett@xtra.co.nz) | 021 572 432 | [www.greenbottle.co.nz](http://www.greenbottle.co.nz)

---



WineWorks intention is to assist the development of the industry by investing in any system that has ongoing volumes that are not speculative. As of mid-2024 we are installing a pilot Bag-in-Box plant in our Marlborough facility.



Any further information that you cannot get by contacting the above people, please contact [Ed Massey](#), our General Manager of Sustainability at New Zealand Winegrowers