



5. Conclusion

Tailor made handling parts combined with certain changes to the bottling line would ensure that claret shaped 187mL PET bottles could be properly handled on the production line at PVM. This would take into account the light weight nature, diameter and surface softness of the bottle.

The trial indicated that from a wine quality point of view, the PET container manufactured with 2%Amfresh™ was equal with glass as a 187mL single serve bottle because the wine had:

1. comparable levels of free and total SO₂
2. comparable low levels of dissolved oxygen
3. vinous flavour equal to that from glass
4. no plastic taint, and
5. comparable freshness.

within 8 months of packaging and bottle manufacture. This was discussed in relation to the shelf life of the:

- empty PET bottle
- bottle full of wine

and the apparent ability of Amfresh™ to scavenge oxygen from the:

- air surrounding the bottle, and
- the wine inside the bottle.

Convenience related attributes of PET which promote it in comparison to glass as a single serve container included the fact 187mL PET was:

1. light weight
2. shatter proof
3. same price when used in volume, and
4. a suitable preserver of wine within the shelf-life period.

After 8 months from packaging (or bottle manufacture), a marked decline in quality of wine was observed with the PET container. However there were indications that the glass container was not suitable, indefinitely, as a container for wine since there was a trend showing the wine would deteriorate at some time after 12 months from bottling. This was discussed in terms that the seal between the screw cap and bottle neck was not as hermetic as might be presumed.

The main drawback with use of PET 187mL containers for wine concern the:

1. permeability of PET to air and hence oxygen.
2. unknown consumer reaction to wine in plastic rather than the traditional glass format.
3. the shelf life which exists on the empty bottle and finished goods.

Analytic and taste attributes studied in this trial showed that 187mL PET made with 2%Amfresh™ was a suitable container for wine for the single serve market.