

Total package oxygen calculator



Estimating total package oxygen (TPO)

The AWRI has developed a method for estimating the total package oxygen (TPO) in wine using just a dissolved oxygen (DO) reading. Currently, most wineries and bottling facilities monitor oxygen uptake at bottling by measuring the dissolved oxygen only in the wine; however, ~ 70% of the oxygen in the bottle is present in the headspace. The TPO method allows the oxygen present both in the wine and the headspace to be estimated just by measuring the DO. This allows a greater understanding of how much oxygen is present in the bottled product.

The TPO calculator, available from the AWRI, allows users to convert a DO reading into an indicative TPO value for the bottled wine. The fill height, wine colour, wine temperature and bottle style are factored into the calculator to provide a fast and accurate result.

Why is TPO important?

TPO has been shown to have a significant impact on the shelf life and ageing profile of a

wine. High TPO values can lead to premature oxidation, affecting the flavour and aroma profiles of bottled wines. If not managed well, the impact of TPO at bottling can be more significant than that of oxygen ingress through the closure over the life of the wine.

Accessing the calculator

The TPO calculator is hosted on the AWRI's website and is free to access. To arrange access using your levy payer login, contact AWRI Information Services.

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