



Calculator for the conversion of dissolved oxygen to total package oxygen



Estimating total package oxygen

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, approximately 70% of the oxygen in the bottle is present in the headspace. The new method allows the TPO – 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 AWRI Commercial Services, 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 it important?

TPO has been shown to have a significant impact on shelf life and the ageing profile of a wine. High TPO values can lead to premature oxidation, impacting the flavour and aroma profiles of bottled wines. If not managed well, the impact of TPO at bottling can be more significant than the oxygen ingress of the closure over the life of the wine.

What does the calculator cost?

Access to the calculator requires a once off set-up fee of \$250, and then an annual subscription fee of \$100 after the first year.



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Fact Sheet

ANALYSIS

Accessing the calculator

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

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