

Application Brief

AB 5359

Rev. 1

OenoFoss™ Go

Finished Wine



This document describes the product type 'finished wine' and selected parameters for this product type, available with the OenoFoss Go.

Finished Wine

In the wine industry, the pragmatic understanding of finished wine would be all product types available in the commercial markets and in the production ready to be bottled. FOSS separates these wines into two product types - 'normal wine' and 'special wine'.

By normal wine is to understand finished wines, which are made by sane and fresh grapes (vitis vinifera), and by using 'normal' vinification processes such as alcoholic fermentation and malolactic fermentation. By special wine is to understand finished wines which are made by grapes (vitis vinifera) using the same vinification processes, however adding special steps in production mainly in order to increase sugar and alcohol contents (i.e. noble rot for sauterne or ethanol for port wine).

In regards to consumer understanding 'normal wines' would correspond to 'table wines' or 'dry wines' and 'special wines' would correspond to 'desert wines' or 'aperitifs'.

The OenoFoss Go finished wine application match the 'normal wines', however with a limit on sugar content. In regards to sugar content the application covers up to 25 g/l.

OenoFoss Go

OenoFoss Go is part the FOSS wine analysis family. The main technique used for all members in the family is infrared spectroscopy - The FTIR technology. Through mathematical modelling of the infrared spectra's, the concentration of wine constituents can be determined. For each parameter in OenoFoss Go there is a prediction model calculating the results. The parameters included for finished wine are: ethanol, glucose plus fructose, malic acid, total acidity and volatile acidity.

The prediction models listed in the overview below has been developed to match the OenoFoss Go software version 1.0.1.1 and newer versions.

| | Prediction Model | | | | | | | <u> </u> |
|---|--|----------|---------|--------|-------------|-------------------|---------------------------|----------------------------------|
| Parameter | Name | P/N | Version | Units | Performance | | | Comments |
| | | | | | Range | Rep ¹⁾ | Acc. ²⁾ | |
| Ethanol | Ethanol Wine | 60087546 | 1.0.0.1 | % Vol. | 8-16 | 0.04 | 0.15 | |
| Glucose plus fructose | GlucFruc Wine | 60087547 | 1.0.0.1 | g/l | 0-5 | 0.1 | 0.45 | |
| | | | | | 0-10 | 0.15 | 0.8 | |
| | | | | | 0-25 | 0.3 | 2.0 | |
| Malic acid | MalicAcid Wine | 60087548 | 1.0.0.1 | g/l | 0-7 | 0.08 | 0.35 | |
| Total acidity | TotalAcidity pH 7.0 H2SO4 Wine | 60087549 | 1.0.0.1 | g/l | 2-5 | 0.05 | 0.15 | Expressed as sulfuric acid |
| | TotalAcidity pH7.0 Tartaric_Wine | 60089166 | 1.0.0.1 | g/l | 3-7.6 | 0.08 | 0.23 | Expressed as tartaric acid |
| Volatile acidity | Volatile Acidity Wine | 60087601 | 1.0.0.1 | g/l | 0-1.0 | 0.018 | 0.08 | Expressed as acetic acid. |
| ¹⁾ The absolute repeatability in corresponding unit. The repeatability expressed as pooled standard deviation of replicates. | | | | | | | | |

Prediction Model Overview

²⁾ The absolute accuracy in corresponding unit. The accuracy is expressed as Standard Error of Prediction (SEP).

Overview of prediction model information Table 1

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