

Application Note

Determination of alcohol content in American red wine by Alcohol meter

Industry	:	Food and Beverage
Instrument	:	Alcohol meter
Measurement method	:	Resonant frequency oscillation

1. Scope

This is an example about determination of the alcohol content (vol%), specific gravity (t/t) and density (g/cm³) in American red wine. The alcohol meter can be used enough for determination of these applications on the wine making process.

Technical note: The alcohol sample must be distilled as per the procedure specified on local regulations before the alcohol content can be measured with this alcohol meter.

2. Apparatus

- Alcohol meter ALM-155
- Distillation apparatus



3. Sample

- American red wine

4. Reagent

- Pure water for rinsing

5. Procedure

A: Alcohol content (vol%):

- 1) Take distilled sample solution into beaker
- 2) Introduce the sampling nozzle into the beaker
- 3) Press [Meas.] button on the instrument

B: Specific gravity (t/t) and Density (g/cm³):

- 1) Take wine sample solution into beaker
- 2) Introduce the sampling nozzle into the beaker
- 3) Press [Meas.] button on the instrument

6. Measurement results

	Procedure A		Procedure B
	Alcohol (vol%) at 20°C	S.G. (t/t)	Density (g/cm ³)
1	12.67	0.99794	0.99615
2	12.69	0.99794	0.99615
3	12.68	0.99795	0.99616
Mean	12.68	0.99794	0.99615
SD	0.01	0.00	0.00
RSD(%)	0.08	0.00	0.00