

## Application Note

# Determination of alcohol content in Spanish 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/cm<sup>3</sup>) in Spanish 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 by this alcohol meter.

## 2. Apparatus

- Alcohol meter ALM-155
- Distillation apparatus



## 3. Sample

- Spanish 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/cm<sup>3</sup>):

- 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 <sup>3</sup> ) |
| wi1    | 12.28                  | 0.99486    | 0.99308                      |
| 2      | 12.28                  | 0.99486    | 0.99308                      |
| 3      | 12.28                  | 0.99486    | 0.99308                      |
| Mean   | 12.28                  | 0.99486    | 0.99308                      |
| SD     | 0.00                   | 0.00       | 0.00                         |
| RSD(%) | 0.00                   | 0.00       | 0.00                         |