

PROTEOTEST®

TEST FOR THE EVALUATION OF PROTEIN STABILITY IN WINES UNDER OENOLOGICAL CONDITIONS



CHARACTERISTICS

PROTEOTEST® is a laboratory kit for the evaluation of protein stability in wines. The test is very simple and is made under oenological conditions so it does not include arbitrary changes. It's the test that better simulates the mechanism of protein instability. The results obtained give an accurate indication of the integrity and quality of the tested wine. The test is made at room temperature and the results are available in few minutes.

During the Intervitis-Interfructa Fair in Stuttgart (April 2007) an international committee awarded the Innovative Prize to Vason for PROTEOTEST®, in recognition of VASONGROUP's knowledge and research of colloidal processes.



APPLICATIONS

This test can be used to determine protein stability in wine and for indicating the necessary quantity of bentonite to reach protein stability. The bentonite rate can be determined by preparing different rates and checking their instability, with the PROTEOTEST®.



DIRECTIONS FOR USE

REAGENT PREPARATION

- Shake a test tube with reagent to break up any lumps, which may have formed.
- Rehydrate this test tube with 10 mL of buffer solution (up to the upper notch);
- Shake reagent and buffer until completely dissolved. The solution will be turbid and has to be used within 15 days from its preparation;
- Filter the solution, with PVDF (*) membrane just before use.

IMPORTANT: it's possible to re-filter the solution as many times as needed within the indicated 15 days, without affecting the test accuracy.

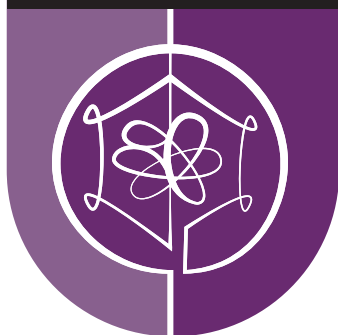
EVALUATION OF WINE'S PROTEIN STABILITY

- Filter (*) and/or centrifuge 50 mL of wine; to evaluate the initial turbidity with a turbidimeter (T1). You can also use cuvettes of smaller volumes with the PROTEOTEST®.
- Add 1.25 mL of reagent solution, prepared as described above. Please remember to filter the reagent (*) just before addition; If using a smaller cuvette, use a proportional amount (i.e. 30ml cuvette use 0.75ml, or 25ml cuvette use 0.625ml of reagent.
- Shake;
- After 5 minutes check again the turbidity (T2).

An increase in turbidity higher than 15 NTU indicates protein instability.

T2-T1 > 15 NTU = UNSTABLE wine

In case a turbidity meter is not available, it is possible to proceed with a naked eye evaluation: In this case check the turbidity compared with the filtered wine sample as at point 1. For red wines, if visibility is difficult, wait a few hours in order to verify the possible formation of sediment.



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EVALUATION OF THE QUANTITY OF BENTONITE NEEDED TO REACH PROTEIN STABILITY IN A WINE

- Select the wine to be tested;
- Take the bentonite that will be used in the tested wine and rehydrate it with the same process and water available in the cellar, according to the instructions reported in the technical data sheet of the supplier (concentration, swelling time etc.);
- Prepare a series of cylinders with wine (e.g.: 100 mL), with increasing dosages of bentonite;
- Shake and let settle;

Take a quantity of clarified wine and continue from point 1 of the previous procedure:

1. Filter (*) and/or centrifuge 50 mL of wine; evaluate its initial turbidity with turbidimeter (T₁).
2. Add 1.25 mL of reagent solution, prepared as described previously. We recommend filtration (*) just before adding it;
3. Shake;
4. After 5 minutes evaluate turbidity again (T₂).

An increase in turbidity higher than 15 NTU indicates protein instability.

T₂-T₁ > 15 NTU = UNSTABLE wine

The first dosage that shows an increase in turbidity lower than 15 will be the dosage required to reach protein stability in the tested wine, i.e. T₂ - T₁ < 15 NTU means the wine is stable, at that dose of bentonite.

In case a turbidity meter is not available, it is possible to proceed with a naked eye evaluation: In this case check the turbidity compared with the filtered wine sample as at point 1. For red wines, if visibility is difficult, wait a few hours in order to verify the possible formation of sediment.



PACKAGING

A small cardboard box containing:
30 test tubes with reagent (every test tube can be used for 8 determinations),
3 x 100 mL bottles of buffer solutions.



STORAGE

Keep in a cool and dry place. Close carefully open packages.



HAZARD

Based on the current European regulations the product is classified: not hazardous.

PRODUCT ONLY FOR PROFESSIONAL/DIAGNOSTIC USE