














PECTIN TESTING

Purpose:

This test will determine if there are pectins present in juice or wine. Pectins are structural components of plant cell walls. In juice and wine, they take the form of polysaccharides which form gelatinous aggregates in an alcohol solution. It is important to remove pectins prior to any flotation, or to aid in the process of clarification/settling of juices. Pectins remaining in white, rose, or red wines will contribute clarification, membrane fouling and filterability issues at bottling.

Materials for testing:

-  Lab filtration system: Millipore Sterifil system
-  Vacuum pump
-  Membrane filters: 0.45 μ
-  Glass prefilters: AP25
-  Screwcap test tubes: 25x200mm
-  Test tube racks
-  Side arm filtering flask
-  pH meter
-  10 & 20 mL pipettes
-  Pipette Bulb
-  Acidified 95% reagent alcohol (pH adjusted to 3 with 0.1N HCL)

Method:

1. Filter approximately 50 mL juice or wine through 0.45 μ membrane filter (prefilter if necessary, through AP25)
2. Pipet 10 mL of the filtered sample into the test tube
3. Pipet 20 mL of 95% acidified reagent alcohol into the same tube and invert to mix
4. Wait 10 minutes to interpret the results

Interpretation of Results:

If pectin is present, your sample will have either whitish precipitate or floating mass of floccs on the surface of the sample. If the sample does not have either of these, it is pectin free.

Considerations for pectin testing prior to flotation:

If you can see the precipitate or the floating white floccs, you still have pectins in the juice. You should only perform a flotation once all the pectins have been hydrolyzed and the sample is free of precipitate.