



Method 1.10 - Official Methods: mixed juice purity

1. Rationale

The purity of a juice sample is equal to the percentage ratio of pol in juice to Brix in juice. Since Brix refers to soluble solids in juice it is important to note that the pol figure used in determining juice purity should be the pol percentage of the liquid fraction and not that of the whole juice of which part is insoluble matter.

2. Principle

The well-mixed juice is divided into two portions. The first portion is filtered with the help of a filter aid and used to determine the Brix of the solution. The second portion is reacted with lead sub-acetate powder for clarification and used to determine the pol of the solution. The pol and Brix so determined is used to determine the purity of mixed juice.

3. Calculations

$$\text{Juice purity} = \frac{\text{pol \% juice uncorrected for insoluble solids}}{\text{Brix \% juice}} \times 100$$

In determining the purity of a product for a weekly period in a factory the preferred method is from the tonnages of pol and Brix.

$$\text{purity} = \frac{\text{tons pol in product for the week}}{\text{tons Brix in product for the week}} \times 100$$

4. References

SASTA (1985). *Laboratory Manual for South African Sugar Factories*. 3rd Edition: 256.