
**Fruit and vegetable products —
Determination of soluble solids —
Refractometric method**

*Produits dérivés des fruits et légumes — Détermination du résidu sec
soluble — Méthode réfractométrique*



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Foreword

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ISO 2173 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 3, *Fruit and vegetable products*.

This second edition cancels and replaces the first edition (ISO 2173:1978), which has been technically revised.

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Fruit and vegetable products — Determination of soluble solids — Refractometric method

1 Scope

This International Standard specifies a refractometric method for the determination of the soluble solids in fruit and vegetable products.

This method is particularly applicable to thick products, to products containing suspended matter, and to products rich in sugar. If the products contain other dissolved substances, the results will be only approximate; nevertheless, for convenience the result obtained by this method can be considered conventionally as the soluble solids content.

NOTE For the determination of the soluble solids in fruit juices (not containing suspended matter) and in concentrated juices (clarified), the pycnometric method specified in ISO 2172 is applicable.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1

soluble solids determined by the refractometric method

concentration of sucrose in an aqueous solution which has the same refractive index as the product analysed, under specified conditions of preparation and temperature.

NOTE This concentration is expressed as a mass fraction in percent.

3 Principle

The refractive index of a test solution is measured at $20\text{ °C} \pm 0,5\text{ °C}$ using a refractometer. The refractive index is correlated with the amount of soluble solids (expressed as sucrose concentration) using tables, or by direct reading on the refractometer of the mass fraction of soluble solids.

4 Reagents

Use only reagents of recognized analytical grade.

4.1 Water

The water used shall have been distilled twice in borosilicate glass apparatus, or shall be water of at least equivalent purity.

5 Apparatus

Usual laboratory apparatus and, in particular, the following.