

**Puu- ja köögiviljamahlad. Lahustuvate ainete
sisalduse hindamine. Refraktomeetriline meetod**

Fruit and vegetable juices - Estimation of soluble solids
content - Refractometric method

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12143:2000 sisaldab Euroopa standardi EN 12143:1996 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 19.09.2000 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

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This Estonian standard EVS-EN 12143:2000 consists of the English text of the European standard EN 12143:1996.

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Võtmesõnad: joogid, keemiline analüüs, lahustuv aine, puu- ja köögiviljamahlad, refraktomeetriline analüüs, sisalduse määramine, toiduainetooted

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Descriptors: Juices, solids content, soluble matter, testing.

English version

Fruit and vegetable juices
Estimation of soluble solids content
Refractometric method

Jus de fruits et de légumes – Estimation
des solides solubles – Méthode réfracto-
métrique

Frucht- und Gemüsesäfte – Bestimmung
des Gehaltes an löslicher Trocken-
substanz – Refraktometrisches Verfahren

This European Standard was approved by CEN on 1996-05-09.

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 174 "Fruit and vegetable juices - Methods of analysis" the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 1997, and conflicting national standards shall be withdrawn at the latest by March 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard : Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies a refractometric method for the estimation of the soluble solids in fruit and vegetable juices and related products.

2 Normative references

This European Standard incorporates by dated or undated references, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN ISO 3696:1995	Water for analytical laboratory use - Specification and test methods
ISO 5725:1986	Precision of test methods - Determination of repeatability and reproducibility for a standard test method by inter-laboratory tests
EN 12147:1996	Fruit and vegetable juices - Determination of titratable acidity

3 Definitions

For the purposes of this standard, the following definitions apply :

3.1 refractometric dry extract or °Brix :

Soluble solids measured by refractometry and expressed as a mass fraction, i.e. in grams of sucrose per 100 grams of solution.

3.2 °Brix corrected :

As°Brix (3.1), after applying the acid correction (see clause 8 and Annex A).

4 Principle

The soluble solids content is estimated by refractometry. This is the percentage by mass of sucrose in an aqueous solution of sucrose which, under given conditions, has the same refractive index as the product analyzed. The product's soluble solids content is expressed in grams per 100 g. The refractive index of the product is affected by the presence of other soluble materials e.g. organic acids, minerals, amino acids. Due to the high acid content of citrus juices and citrus juice concentrates a correction to the °Brix value is made in such cases.