INTERNATIONAL STANDARD

ISO 6647-2

Second edition
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Rice — Determination of amylose content —

Part 2: Routine methods

Riz — Détermination de la teneur en amylose —

Partie 2: Méthodes de routine

Reference number
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 34, *Food products*, Subcommittee SC 4, *Cereals and pulses*.

This second edition cancels and replaces the first edition (ISO 6647-2:2007), of which it constitutes a minor revision.

ISO 6647 consists of the following parts, under the general title *Rice — Determination of amylose content*:

— *Part 1: Reference method*

— *Part 2: Routine methods*

Rice — Determination of amylose content —

Part 2: Routine methods

1 Scope

This part of ISO 6647 specifies a simplified routine method for the determination of the amylose content of milled, non-parboiled rice in the range from 1 % to 30 %. Rice samples for which the amylose content has been determined by the reference method size exclusion chromatography (SEC) are used as standards to generate the calibration curve.

NOTE The use of standards calibrated by SEC is an approach to determine the true amylose content and decreases the conversion errors of this part of ISO 6647.[1]

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6647-1, *Rice — Determination of amylose content — Part 1: Reference method*

ISO 7301, *Rice — Specification*

ISO 8466-1, *Water quality — Calibration and evaluation of analytical methods and estimation of performance characteristics — Part 1: Statistical evaluation of the linear calibration function*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6647-1 and ISO 7301 apply.

4 Principle

Rice is ground to a very fine flour to break up the endosperm structure in order to aid complete dispersion and gelatinisation. A test portion is dispersed in sodium hydroxide solution, then an aliquot is mixed with iodine solution. The absorbance, at 620 nm or 720 nm of the colour complex formed, is then determined using a spectrophotometer.

The amylose content of the sample is then read from a calibration graph, which is prepared using rice samples with known amylose content, determined using the reference method (see ISO 6647-1).

NOTE Rice samples with certified amylose content according to ISO 6647-1 are used as standards.

5 Reagents

All the reagents used shall be of recognized analytical quality and the water used shall be distilled, or demineralised water, or water of equivalent purity.

5.1 Ethanol, 95 % (v/v).