SLOVENSKI STANDARD
SIST EN ISO 17718:2015

01-februar-2015

Polnozrnata in pšenična moka (Triticum aestivum L.) - Ugotavljanje reoloških lastnosti kot funkcija mešanja in porasta temperature (ISO 17718:2013)

Wholemeal and flour from wheat (Triticum aestivum L.) - Determination of rheological behaviour as a function of mixing and temperature increase (ISO 17718:2013)

Weizenvollkorn- und Weizenmehl (Triticum aestivum L.) - Bestimmung der rheologischen Eigenschaften als Funktion von Kneten und Temperaturanstieg (ISO 17718:2013)

Farine et mouture complète de blé tendre (Triticum aestivum L.) - Détermination du comportement rhéologique des pâtes en fonction du pétrissage et de l'augmentation de la température (ISO 17718:2013)

Ta slovenski standard je istoveten z: **EN ISO 17718:2014**

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67.060	Žita, stročnice in proizvodi iz njih	Cereals, pulses and derived products

SIST EN ISO 17718:2015 **en**

EUROPEAN STANDARD

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EN ISO 17718

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English Version

Wholemeal and flour from wheat (Triticum aestivum L.) - Determination of rheological behaviour as a function of mixing and temperature increase (ISO 17718:2013)

Farine et mouture complète de blé tendre (Triticum aestivum L.) - Détermination du comportement rhéologique des pâtes en fonction du pétrissage et de l'augmentation de la température (ISO 17718:2013)

Weizenvollkorn- und Weizenmehl (Triticum aestivum L.) - Bestimmung der rheologischen Eigenschaften als Funktion von Kneten und Temperaturanstieg (ISO 17718:2013)

This European Standard was approved by CEN on 16 December 2014.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

Page

Foreword

The text of ISO 17718:2013 has been prepared by Technical Committee ISO/TC 34 “Food products” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 17718:2014 by Technical Committee CEN/TC 338 “Cereal and cereal products” 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of an identical text or by endorsement, at the latest by June 2015, and conflicting national standards shall be withdrawn at the latest by June 2015.

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Endorsement notice

The text of ISO 17718:2013 has been approved by CEN as EN ISO 17718:2014 without any modification.

INTERNATIONAL STANDARD

ISO 17718

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Wholemeal and flour from wheat (*Triticum aestivum* L.) — Determination of rheological behaviour as a function of mixing and temperature increase

*Farine et mouture complète de blé tendre (*Triticum aestivum *L.) — Détermination du comportement rhéologique en fonction du pétrissage et de l'augmentation de la température*

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Contents

Page

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 17718 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 4, *Cereals and pulses*.

Introduction

The behaviour of dough is dependent on numerous parameters. Some of these parameters, such as water absorption, dough development time, and kneading stability, are linked to the quality and quantity of the proteins, while other parameters, such as gelatinization, gelling stability, and retrogradation, are linked to the properties of the starch.

The Mixolab®[1)] measures the torque between two mixing arms during kneading while varying the in-bowl temperature, making it possible to gain in-depth information on samples and thus gain a better understanding of the characteristics of tested wheat or flours.

Wholemeal and flour from wheat (*Triticum aestivum* L.) — Determination of rheological behaviour as a function of mixing and temperature increase

1 Scope

This International Standard specifies the determination of rheological behaviour as a function of mixing and temperature increase. It is applicable to all wholemeal and flour samples from industrial or laboratory milling of wheat (*Triticum aestivum* L.).

NOTE Wheat can be milled in the laboratory according to the methods described in ISO 27971[5] or in BIPEA guidance document BY.102.D.9302.[7]

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 712, *Cereals and cereal products — Determination of moisture content — Reference method*

3 Terms and definitions

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

3.1
water absorption
volume of water required to obtain a dough with a maximum consistency of (1,10 ± 0,05) Nm

Note 1 to entry: Water absorption is expressed in millilitres per 100 g of flour with a moisture content of 14 % mass fraction.

3.2
time T1
time required for the dough to reach the target consistency C1 of (1,10 ± 0,05) Nm

Note 1 to entry: Development time is expressed in minutes.

3.3
stability
calculated time during which the dough achieves a consistency higher than C1 – 11 % × C1

4 Principle

Dough behaviour is determined as it is subjected to a combined kneading and temperature treatment during a constant temperature phase, followed by a heating phase, then held at high temperature, and subsequently cooled. Water is added to flour to achieve a maximum dough consistency of (1,10 ± 0,05) Nm during the first constant temperature phase.

The dough is first kneaded between two mixing arms rotating in opposite directions at 80 r/min, at a starting temperature of 30 °C. The torque that the dough creates between the two mixing arms is recorded. Kneading then continues while temperature is increased to 90 °C at a rate of 4 °C/min. The

