
**Alimentary pasta produced from durum
wheat semolina — Estimation of cooking
quality by sensory analysis —**

**Part 2:
Routine method**

*Pâtes alimentaires produites à partir de semoule de blé dur —
Appréciation de la qualité de cuisson par analyse sensorielle —
Partie 2: Méthode 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.

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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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 7304-2 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 4, *Cereals and pulses*.

ISO 7304 consists of the following parts, under the general title *Alimentary pasta produced from durum wheat semolina — Estimation of cooking quality by sensory analysis*:

- *Part 1: Reference method* [in preparation (revision of ISO 7304:1985)]
- *Part 2: Routine method*

Alimentary pasta produced from durum wheat semolina — Estimation of cooking quality by sensory analysis —

Part 2: Routine method

1 Scope

This part of ISO 7304 specifies a method for assessing, by sensory analysis, the quality of cooked alimentary pasta in the form of long, solid strands (e.g. spaghetti) or short, hollow strands (e.g. macaroni) produced from durum wheat semolina, expressed in terms of the starch release, liveliness and firmness characteristics (i.e. texture) of the pasta. It does not apply to pasta in the form of small strands usually consumed in soups.

The method may also be applied to alimentary pasta made from common wheat or a mixture of common wheat and durum wheat, as long as the appropriate national regulations allow these products to be used in alimentary pasta.

The method has been specifically developed to provide a procedure for the daily evaluation of pasta samples based on the use of reference samples.

The test result does not express a preference, but gives only an estimate of the cooking quality of the pasta after it has been cooked for the optimum cooking time.

2 Normative references

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

ISO 5492, *Sensory analysis — Vocabulary*

ISO 8586-1, *Sensory analysis — General guidance for the selection, training and monitoring of assessors — Part 1: Selected assessors*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5492 and the following apply.

3.1

starch release

release of starch from cooked pasta, indicating the state of surface breakdown of the pasta

NOTE The amount of starch released can be assessed by means of a tactile investigation which estimates the tackiness of the surface to the touch.

3.2

liveliness

ability of one strand of pasta to slide smoothly over another, which depends on the degree of strand-to-strand adhesion

NOTE 1 Liveliness is applicable only to pasta in the form of long strands.

NOTE 2 It depends on the geometry of the product, on the stickiness of the surface and on the firmness of the pasta.

3.3

firmness

resistance of cooked pasta to crushing when it is positioned on the distal phalanx of the index finger and crushed with the tip of the thumb

3.4

optimum cooking time

t

time after which the continuous white line visible at the centre of a strand of pasta during cooking disappears, as determined by crushing using a crushing plate (6.11) in the case of long, solid strands of pasta (e.g. spaghetti) or by cutting the strand at right angles with a blade (6.12) in the case of short, hollow strands of pasta (e.g. macaroni).

NOTE By convention, the white line is considered to have disappeared when it is visible only as a row of dots (see Annex A).

4 Principle

A test sample of pasta is cooked by a standard procedure and the starch release, liveliness and firmness assessed. The test sample is then rated in accordance with the results.

5 Reagents

5.1 Tap water.

The best results are obtained if the hardness of the water is brought to $(1,5 \pm 0,1)$ mmol Ca^{2+}/l (French hardness 15 ± 1) with a dedicated water softener (6.10).

NOTE It is also possible to control the water hardness using a commercially available kit.

6 Apparatus

- 6.1 **Balance**, capable of weighing to the nearest 0,01 g.
- 6.2 **Steel pot**, thick-bottomed, diameter about 17 cm, capacity 2,5 l, with a lid.
- 6.3 **Electric hotplate**, diameter about 19 cm, power output about 1 500 W.
- 6.4 **Colander**, for pasta, made of stainless steel, diameter about 25 cm to 30 cm.
- 6.5 **Timer**.
- 6.6 **Flat white plates**, diameter (24 ± 2) cm.
- 6.7 **Fork**.
- 6.8 **Graduated cylinder**, capacity 1 l.