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Cheese — Guidance on sample preparation for physical and chemical testing

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Contents

Page

| | | |
|----------|------------------------------------|----------|
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Devices and tools | 1 |
| 5 | Sampling | 2 |
| 6 | Procedure | 2 |
| 7 | Test report | 3 |
| 8 | Bibliography | 3 |

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The committee responsible for this document is ISO/XXX

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Introduction

This document is meant to serve as guidance for the handling of cheese samples. The sampling procedure as described in this document is meant to be applied after the samples have been obtained according to ISO 707|IDF 50, and before the prepared sample is offered for analysis on either physical or chemical characteristics.

Cheese — Guidance on sample preparation for physical and chemical testing

1 Scope

This document provides guidance on sample preparation of cheese, processed cheese or whey cheese.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 707|IDF 50:2008 *Milk and milk products - Guidance on sampling*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Devices and tools

Usual laboratory apparatus and, in particular, the following.

4.1 General

The devices and tools to be used shall be clean and dry. The devices and tools may not demonstrably influence the properties and composition of the sample.

4.2 Knife or other suitable cutting device

4.3 Peeling device

NOTE A razor blade planer has proven to be a suitable device

4.4 Grinding machine

An apparatus with a rotating grater, provided with apertures of 1,2 mm in diameter, has been proven suitable.

4.5 Container with cover

Of suitable material, e.g. plastic, and of suitable size.

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4.6 Spoons or spatulas

Use spoons or spatulas of suitable size.

4.7 Mixing equipment

Optional, any suitable equipment.

4.8 Wide-necked sample container

Of suitable material with a volume of 100 ml to 200 ml, provided with a well-closing lid.

5 Sampling

Sampling is not part of the method specified in this document. A recommended sampling method is given in [ISO 707](#)/[IDF 50](#) [1].

6 Procedure

6.1 General

The procedure as described below shall be executed as swiftly as possible, so that the composition of the sample is not demonstrably affected.

Commented [HvdB1]: Description below is for semi-hard Gouda-type cheeses. To be extended for other types of cheese.

6.2 Removal of the rind

Remove the outer part (the rind) of the cheese sample, using the peeling device (4.3). The thickness of the removed rind shall be equivalent with the thickness of the rind that is normally removed before consuming the cheese. When sampling a semi-hard cheese with a rind and an age of less than four weeks, remove a rind with a thickness of 0,25 mm to 0,5 mm. When sampling an older cheese, the thickness of the rind to be removed shall range between 0,25 mm to 1 mm. When preparing cheese without a non-palatable rind or processed cheese, the surface layer shall not be removed.

6.3 Cutting

Cut the sample in tubes. The cubes shall measure approximately 15 mm x 15 mm x 15 mm.

6.4 Grinding

Mix the cubes manually or by using adequate mixing equipment (4.7).

Carefully grind the complete cut sample in a grinding machine (4.4). Collect the ground sample in the container with cover (4.5). Close the container with the cover and mix intensively. Repeat, if necessary, the grinding, collecting and mixing.

If, due to the nature of the sample, it is not possible to grind the sample in a satisfactory way, continue with the procedure as described in 6.4.

6.5 Final preparation steps before analysis or storage

Immediately transfer a quantity of the grinded sample into the wide-necked sample container (4.8). Ensure that this container (4.8) is filled up until at least half.

For samples that are not or not easily grinded, mix the sample in the wide-necked sample container (4.8). Mix the sample well, altogether or by taking a part of it, using a spoon or spatula.

A sample that cannot immediately be tested after the pre-treatment, is to be stored at a temperature of 8 °C to 12 °C.

7 Test report

The test report shall indicate the method used and the results obtained. It shall, in addition, provide all the information required for the complete identification of the sample.

The test report shall provide a reference to the method of sample preparation, if known, together with details that could be of importance when judging the results of the test.

8 Bibliography

- [1] ISO 707:2008|IDF 50:2008, *Milk and milk products — Guidance on sampling*.