

Vee analüüs. Lõhnaläve indeks (TON) ja maitaseläve indeks (TFN) määramine

Water quality - Determination of the threshold odour number (TON) and threshold flavour number (TFN)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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| <p>Käesolev Eesti standard EVS-EN 1622:2006 sisaldab Euroopa standardi EN 1622:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 20.09.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p> | <p>This Estonian standard EVS-EN 1622:2006 consists of the English text of the European standard EN 1622:2006.</p> <p>This document is endorsed on 20.09.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p> |
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| <p>Käsitlusala: Käesolev Euroopa standard esitab meetodi vete TON-i ja TFN-i määramiseks. Oluline on, et järgitaks ohutusjuhiseid. On kirjeldatud kahte meetodit: lühimeetodit, mis on kohaldatav siis, kui proovil pole lõhna ega maitset või kui lõhna ja maitset võrreldakse täpselt kindlaksmääratud tundlikkuseläve indeksiga, ning põhjalikku meetodit, mis on kohaldatav siis, kui tuleb määrata proovi tundlikkuseläve indeks.</p> | <p>Scope: This European Standard specifies quantitative methods for determining the TON and TFN of waters and also a qualitative method for determining any abnormal odour and/or flavour. It is essential that the safety remarks in Clause 5 are taken into account.</p> |
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Võtmesõnad: keemiline analüüs, kvaliteet, kvantitatiivne analüüs, lõhnad, maitse, määramine, sensoorne analüüs, veetestid, vesi

English Version

Water quality - Determination of the threshold odour number (TON) and threshold flavour number (TFN)

Qualité de l'eau - Détermination du seuil d'odeur (TON) et du seuil de saveur (TFN)

Wasserbeschaffenheit - Bestimmung des Geruchsschwellenwerts (TON) und des Geschmacksschwellenwerts (TFN)

This European Standard was approved by CEN on 14 July 2006.

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Contents

Page

| | |
|---|----|
| Foreword..... | 4 |
| Introduction | 5 |
| 1 Scope | 6 |
| 2 Normative references | 6 |
| 3 Terms and definitions | 6 |
| 4 Principle..... | 8 |
| 5 Hazards | 8 |
| 6 Test environment..... | 8 |
| 7 Apparatus and reagents..... | 8 |
| 8 Sampling and sample preservation | 9 |
| 9 Test panel and selected assessors..... | 9 |
| 10 Procedure for unforced choice | 10 |
| 10.1 General..... | 10 |
| 10.2 Type of test..... | 10 |
| 10.2.1 The triangle test | 10 |
| 10.2.2 The paired test | 10 |
| 10.3 Type of method | 10 |
| 10.3.1 Short method..... | 10 |
| 10.3.2 Full method..... | 11 |
| 11 Expression of results | 13 |
| 11.1 The short method..... | 13 |
| 11.2 The full method | 13 |
| 12 Test report | 13 |
| Annex A (normative) Chlorinated water | 15 |
| A.1 General..... | 15 |
| A.2 Dechlorination by addition of sodium thiosulfate..... | 15 |
| A.2.1 Preparation of reagent | 15 |
| A.2.2 Procedure | 15 |
| A.3 Dechlorination by addition of ascorbic acid..... | 15 |
| A.3.1 Preparation of reagent | 15 |
| A.3.2 Procedure | 15 |
| Annex B (normative) Forced choice test method..... | 16 |
| B.1 General..... | 16 |
| B.2 Determination of TON and TFN | 16 |
| B.3 Expression of results | 17 |
| B.3.1 The short method..... | 17 |
| B.3.2 The full method | 17 |
| B.3.3 Test report | 17 |
| Annex C (normative) Qualitative simplified procedure..... | 18 |
| Annex D (informative) Method for the preparation of reference water ¹⁾ | 19 |
| D.1 Apparatus and reagents..... | 19 |
| D.2 Procedure | 19 |
| Annex E (informative) Selection of the test panel..... | 20 |

| | | |
|---|-----------------------|----|
| E.1 | General | 20 |
| E.2 | Self-evaluation | 20 |
| E.3 | Screening test..... | 20 |
| Annex F (informative) Preparation of dilutions | | 23 |
| Annex G (informative) Interlaboratory test by forced choice methodology | | 24 |
| Bibliography..... | | 27 |

Figures

| | |
|--|----|
| Figure G.1 — Graphical presentation of threshold flavour number; calculated threshold flavour number is 13,5 | 25 |
|--|----|

Tables

| | |
|---|----|
| Table 1 — Threshold numbers | 13 |
| Table E.1 — Long term constraints form | 21 |
| Table E.2 — Test report form for individual candidates..... | 22 |
| Table F.1 —Examples of successive dilutions, x^p (10.3. 2.2)..... | 23 |
| Table G.1 — Statistical evaluation by forced choice triangle test (TFN), concerning the measurements obtained by 10 selected assessors, for assessment of drinking water ($x=2$)..... | 24 |
| Table G.2 — Measurements on odour and flavour on geosmin solutions (forced choice, triangle test)..... | 25 |
| Table G.3 — Measurements on odour and flavour on geosmin solutions (forced choice, paired test)..... | 26 |

Foreword

This document (EN 1622:2006) has been prepared by Technical Committee CEN/TC 230 "Water analysis", the secretariat of which is held by DIN.

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 February 2007, and conflicting national standards shall be withdrawn at the latest by February 2007.

This document supersedes EN 1622:1997.

The forced choice test method has been moved into Annex B. Annex C has been added. The standard has been completely editorially revised.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This European Standard gives quantitative methods for the determination of the threshold odour number (TON) and the threshold flavour number (TFN). The main methodology (unforced choice) widely used in Europe is described in this European Standard.

Another methodology, used by a limited number of member state (forced choice) is described in Annex B.

A simplified qualitative method is also described in Annex C.

The methods specified in this European Standard are based on the standard methods for sensory analysis. However, some differences are noted, as compared with those methods, due to water specificity.

This European Standard is primarily intended to give a quantitative measure of odour and flavour of a water sample at a temperature of 23 °C.

NOTE The method can be used to determine the odour and flavour of a water sample at other temperatures but there will be no correlation between results obtained at different temperatures.

WARNING — Persons using this European Standard should be familiar with normal laboratory practice. This European Standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

IMPORTANT — It is absolutely essential that tests conducted according to this European Standard be carried out by suitably trained staff.

1 Scope

This European Standard specifies quantitative methods for determining the TON and TFN of waters and also a qualitative method for determining any abnormal odour and/or flavour. It is essential that the safety remarks in Clause 5 are taken into account.

Two quantitative methods are described:

- a short method applicable when either a sample has no odour and flavour or when the odour and flavour are to be compared with a specified threshold number;
- a full method applicable when the threshold number for the sample is to be determined.

For both quantitative methods, two different methodologies are described:

- unforced choice in the standard;
- forced choice in Annex B.

Both methods are applicable for quantifying the odour and flavour of drinking water and/or migration waters from materials in contact with waters.

NOTE The choice of the quantitative or qualitative method is depending on the national regulations, and on the type of water to be assessed (raw water, distribution water, migration water)

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 7393-2, *Water quality — Determination of free chlorine and total chlorine — Part 2: Colorimetric method using N,N-diethyl-1,4-phenylenediamine, for routine control purposes*

3 Terms and definitions

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

3.1 odour
organoleptic attribute perceptible by the olfactory organ on sniffing certain volatile substances (see ISO 5492)

3.2 flavour
complex combination of the olfactory, gustatory and trigeminal sensations perceived during tasting. The flavour may be influenced by tactile, thermal, painful and/or kinaesthetic effects (see ISO 5492)

3.3 threshold odour number (TON)
dilution ratio beyond which the diluted sample does not have any perceptible odour

$$TON = \frac{A + B}{A} \quad (1)$$

where