

Influence of organic materials on water intended for human consumption - Determination of odour and flavour assessment of water in piping systems

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Influence of organic materials on water intended for human consumption - Determination of odour and flavour assessment of water in piping systems

Influence des matériaux organiques sur l'eau destinée à la consommation humaine - Détermination de l'odeur et de la saveur de l'eau dans les réseaux de conduites

Einfluss von organischen Werkstoffen auf Wasser für den menschlichen Gebrauch - Bestimmung des Geruchs und Geschmacks des Wassers in Rohrleitungssystemen

This European Standard was approved by CEN on 27 November 2015.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword.....	4
Introduction	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	6
4 Principle	8
5 Reagents	8
6 Apparatus.....	9
7 Sampling, transport, storage, and preparation of test pieces.....	10
7.1 General.....	10
7.2 Site-applied products.....	10
7.3 Surface-area-to-volume ratio (S/V)	10
7.3.1 General.....	10
7.3.2 Pipes.....	11
7.3.3 Fittings, ancillaries and membranes.....	11
7.3.4 Site-applied products.....	11
8 Preparation of reagents and apparatus.....	11
8.1 Test water	11
8.2 Test water with chlorine content	11
8.3 Cleaning of glassware	12
9 Pretreatment of test pieces	12
9.1 General.....	12
9.2 Test pieces to be tested at $(23 \pm 2) ^\circ\text{C}$ (Cold water test).....	12
9.2.1 Flushing	12
9.2.2 Stagnation with test water.....	12
9.3 Test pieces to be tested at elevated temperature ($60 ^\circ\text{C}$ or $85 ^\circ\text{C}$).....	13
9.3.1 Flushing	13
9.3.2 Stagnation with test water at elevated temperature	13
9.4 Prewashing.....	13
10 Test procedure	13
10.1 General.....	13
10.2 Cold water test procedure.....	13
10.3 Elevated temperature test procedure	14
11 Determination of TON and TFN.....	14
12 Expression of results.....	15
13 Test report.....	15
13.1 General information.....	15
13.2 Information on the product/material	15
13.3 Information for site-applied products	16
13.4 Information on the test procedure	16
13.5 Test results	16

Annex A (informative) Schematic presentation of test method.....	18
Annex B (normative) Sequence of additional migration periods.....	20
Annex C (normative) Panel qualification for odour and flavour testing	22
C.1 General	22
C.2 Individual TON determination.....	22
C.3 Ranking test.....	23
C.4 Long term monitoring.....	23
Annex D (informative) Preparation of dilution series for panel qualification.....	24
D.1 Series of successive MtBE dilutions	24
D.1.1 MtBE spike solution	24
D.1.2 Series of successive dilutions.....	24
D.2 Series of successive 1-butanol concentrations	24
D.2.1 1-butanol spike solution	24
D.2.2 Series of successive dilutions.....	25
Bibliography	26

European foreword

This document (EN 1420:2016) has been prepared by Technical Committee CEN/TC 164 "Water supply", 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 July 2016, and conflicting national standards shall be withdrawn at the latest by July 2016.

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

This document supersedes EN 1420-1:1999.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

With regard to the former edition EN 1420-1:1999, the following changes were made:

- the test method for TON /TFN according to EN 1622 has been specified,
- a procedure for the panel qualification has been introduced,
- the preparation of the migration waters has been specified and is now in accordance with EN 12873-1,
- the scope of the standard has been extended: all organic products in contact with drinking water (including coatings and side applied products) can be tested according to this standard.

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

Introduction

In respect of potential adverse effects on the quality of the water intended for human consumption, arising from contact with materials used for conveying and distribution, it is recalled to mind that, national regulations remain in force.

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1 Scope

This European Standard specifies a procedure for obtaining a migration water to determine odour and flavour for products made from organic materials intended to come in contact with water for human consumption (drinking water) and used in piping systems. Such products include pipes, fittings, ancillaries and coatings.

This standard is applicable to products to be used under various conditions for the transport, storage and distribution of water intended for human consumption and raw water used for the manufacture of water intended for human consumption.

This standard specifies a test method comprising of a set of procedures. The use may be dependent on the relevant national regulations and/or the system or product standards.

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.

EN 1622:2006, *Water quality — Determination of the threshold odour number (TON) and threshold flavour number (TFN)*

EN 12873-1:2014, *Influence of materials on water intended for human consumption — Influence due to migration — Part 1: Test method for factory-made products made from or incorporating organic or glassy (porcelain/vitreous enamel) materials*

EN 12873-2, *Influence of materials on water intended for human consumption — Influence due to migration — Part 2: Test method for non-metallic and non-cementitious site-applied materials*

EN 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 (ISO 7393-2)*

3 Terms and definitions

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

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

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

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

[SOURCE: EN 1622:2006, 3.3]