

Influence of materials on water intended for human consumption - Influence due to migration - Part 3: Test method for ion exchange and adsorbent resins

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 12873-3:2019 sisaldab Euroopa standardi EN 12873-3:2019 ingliskeelset teksti.	This Estonian standard EVS-EN 12873-3:2019 consists of the English text of the European standard EN 12873-3:2019.
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English Version

**Influence of materials on water intended for human
consumption - Influence due to migration - Part 3: Test
method for ion exchange and adsorbent resins**

Influence des matériaux en contact sur l'eau destinée à
la consommation humaine - Influence due à la
migration - Partie 3: Méthode d'essai des résines
adsorbantes et échangeuses d'ions

Einfluss von Materialien auf Trinkwasser - Einfluß
infolge der Migration - Teil 3: Prüfverfahren für Ionen
und Adsorberharze

This European Standard was approved by CEN on 26 November 2018.

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.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 12873-3:2019) 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of an identical text or by endorsement, at the latest by August 2019, and conflicting national standards shall be withdrawn at the latest by August 2019.

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

This document supersedes EN 12873-3:2006.

This document will result in one of a series of standards on test methods which support the appropriate standards, for products in contact with water intended for human consumption.

It has been drawn up with the objective to describe a test method to determine the migration of substances from ion exchange and absorbent resins.

Evaluation of the efficiency of resins, in removing contaminants, is not included.

Informative Annex A, provides a flow diagram of the steps in the test procedure.

Informative Annex B, describes a test apparatus.

Informative Annex C, provides information on resin pre-treatment.

This standard is the third in a series of standards dealing with the influence of migration from materials on water intended for human consumption, including:

Part 1 Test method for factory-made products made from or incorporating organic or glassy (porcelain/vitreous enamel) materials;

Part 2 Test method for non-metallic and non-cementitious site-applied materials;

Part 3 Test method for ion exchange and adsorbent resins;

Part 4 Test method for water treatment membranes.

The major technical changes from EN 12873-3:2006 are:

- Introduction of a second sampling method
- Specification of a method of control of the test device

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

In respect of potential adverse effects on the quality of water intended for human consumption caused by materials, it should be remembered that, while awaiting the adoption of verifiable European acceptance criteria, the relevant national regulations remain in force.

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1 Scope

This document specifies a procedure to determine the migration of substances from ion exchange, adsorbent or hybrid resin materials for use in contact with water intended for human consumption.

Resins comprise synthetic organic macromolecular materials.

This standard is applicable to resins of the following types:

- ion exchange resins: used to modify the composition of water (e.g. softening by removal of calcium ions). They can be in either an anionic or cationic state;
- adsorbent resins: used to lower the concentration of undesirable substances (usually organic pollutants) from water. They are used in a neutral state;
- hybrid adsorbers: Organic polymer based ion exchange resin or adsorbent resin with incorporated inorganic (e.g. iron hydroxide) or second organic phase. Used to lower the concentration of undesirable substances (specific inorganic or organic pollutants) from water. They can be in either an anionic, cationic or neutral state.

2 Normative references

There are no normative references in this document.

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>

3.1

test

technical operation that consists of the determination of one or more characteristics of a given product

3.2

test procedure

specified technical method for performing a test

3.3

test report

document that presents test results and other information relevant to a test

3.4

testing laboratory

laboratory that performs tests

3.5

product

material, in its finished form that comes into contact with water