

Influence of cementitious products on water intended for human consumption - Test methods - Part 3: Migration of substances from factory-made cementitious products

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 14944-3:2023 sisaldab Euroopa standardi EN 14944-3:2023 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 20.12.2023.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 14944-3:2023 consists of the English text of the European standard EN 14944-3:2023.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 20.12.2023.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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## Influence of cementitious products on water intended for human consumption - Test methods - Part 3: Migration of substances from factory-made cementitious products

Influence des produits à base de ciment sur l'eau destinée à la consommation humaine - Méthodes d'essais - Partie 3 : Migration de substances à partir des produits à base de ciment fabriqués en usine

Einfluss von zementgebundenen Produkten auf Wasser für den menschlichen Gebrauch- Prüfverfahren- Teil3: Migration von Substanzen aus fabrikmäßig hergestellten zementgebundenen Produkten

This European Standard was approved by CEN on 7 August 2023.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN 14944-3:2023) 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of an identical text or by endorsement, at the latest by June 2024, and conflicting national standards shall be withdrawn at the latest by June 2024.

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 14944-3:2007.

In comparison with EN 14944-3:2007, the following changes have been made:

- provisions for testing the influence of materials on the migration of organic substances (TOC) have been shifted to EN 14944-1;
- requirements for disinfection (preconditioning with 50 mg/l chlorine) have been removed;
- a procedure for extending the number of migration periods has been included.

This document describes a test method to determine the migration of inorganic substances in water intended for human consumption.

This European Standard will result in one of a series of standards that support standards for the approval of products and materials in contact with water intended for human consumption.

This European Standard is part of a series dealing with the influence of cement based and associated non-cement-based products/materials on water intended for human consumption, including:

- *Part 1: Influence of factory-made cement-based products on organoleptic parameters and migration of organic substances (TOC)*
- *Part 2: Influence of site-applied cement-based materials and associated non-cement-based products/materials on organoleptic parameters and migration of organic substances (TOC)*
- *Part 3: Migration of substances from factory-made cement-based products*
- *Part 4: Migration of substances from site-applied cement-based materials and associated non-cement-based products/materials*

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

## 1 Scope

This document specifies a method to determine the migration of substances from factory-made cement-based products into test waters after contact with the products.

This document is applicable to factory-made cement based, e.g. cement mortar linings to metallic pipes, tanks, concrete pipes, etc., intended to be used for the transport and storage of water intended for human consumption, including raw water used for the production of drinking water.

NOTE Tests with the specified test water will not necessarily be representative of materials used in different kinds of waters and especially very soft waters.

## 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 196-1, *Methods of testing cement - Part 1: Determination of strength*

EN 1015-2, *Methods of test for mortar for masonry - Part 2: Bulk sampling of mortars and preparation of test mortars*

EN 1015-11, *Methods of test for mortar for masonry - Part 11: Determination of flexural and compressive strength of hardened mortar*

EN 10088-1, *Stainless steels - Part 1: List of stainless steels*

EN 12350-1, *Testing fresh concrete - Part 1: Sampling and common apparatus*

EN 12390-1, *Testing hardened concrete - Part 1: Shape, dimensions and other requirements for specimens and moulds*

EN 12390-2, *Testing hardened concrete - Part 2: Making and curing specimens for strength tests*

EN ISO 7393-1, *Water quality - Determination of free chlorine and total chlorine - Part 1: Titrimetric method using N, N-diethyl-1,4-phenylenediamine (ISO 7393-1)*

EN ISO 7393-2, *Water quality - Determination of free chlorine and total chlorine - Part 2: Colorimetric method using N,N-dialkyl-1,4-phenylenediamine, for routine control purposes (ISO 7393-2)*

EN ISO 10523, *Water quality - Determination of pH (ISO 10523)*

ISO/TS 13530, *Water quality — Guidance on analytical quality control for chemical and physicochemical water analysis*