

### Vplyv cementových výrobkov na pitnú vodu Skúšobné metódy Časť 3: Migrácia látok z priemyselne vyrobených cementových výrobkov

STN EN 14944-3

75 8710

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

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/24

Obsahuje: EN 14944-3:2023

Oznámením tejto normy sa ruší STN EN 14944-3 (75 8710) z apríla 2008

#### 138231

## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 14944-3

December 2023

ICS 13.060.20; 67.250

Supersedes EN 14944-3:2007

#### **English Version**

# 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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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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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of an identical text or by endorsement, at the latest by June 2024, and conflicting national standards shall be withdrawn at the latest by June 2024.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

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