

Vplyv cementových výrobkov na pitnú vodu Skúšobné metódy Časť 4: Migrácia látok z cementových materiálov aplikovaných na stavenisku a pridružených necementových výrobkov/materiálov

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Influence of cement based products on water intended for human consumption - Test methods - Part 4: Migration of substances from site-applied cement based materials and associated non-cement based products/materials

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

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English Version

Influence of cement based products on water intended for human consumption - Test methods - Part 4: Migration of substances from site-applied cement based materials and associated non-cement based products/materials

Influence des produits à base de ciment sur l'eau destinée à la consommation humaine - Méthodes d'essai - Partie 4 : Migration de substances à partir de matériaux à base de ciment appliqués sur site et de produits/matériaux associés exempts de ciment

Einfluss zementgebundener Produkte auf Wasser für den menschlichen Gebrauch - Prüfverfahren - Teil 4: Migration von Substanzen aus bauseits angewendeten zementgebundenen Materialien und zugehörigen nicht zementgebundenen Produkten/Materialien

This European Standard was approved by CEN on 7 April 2025.

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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

COII	tents	Page
Euroj	pean foreword	6
1	Scope	7
2	Normative references	7
3	Terms and definitions	7
4	Principle	9
5	Reagents	10
5.1	Sodium hypochlorite solution	
5.2	Waters to be used for testing	
5.3	Cleaning liquids for apparatus	11
6	Apparatus	
6.1	General	
6.2	Apparatus and materials for test piece preparation (see Annexes A, B and C)	
6.3	Apparatus and materials for preconditioning and migration procedure	
7	Samples and test pieces	
7.1	Sampling, transport and storage of samples	
7.2	Preparation of test pieces	
7.3	Surface area to volume ratio (S/V) for use in the test procedure	
8	Pre-treatment of samples (curing and preconditioning)	
3.1	General	
8.2	Preconditioning	14
9	Test procedure	
9.1	General	
9.2	Preparation of migration water for analysis of substances	
9.3	Control samples (procedural blank test)	
10	Analysis	15
11	Calculation of test results	15
11.1	General	
11.2	Calculation of the concentration of the substances in the migration water	
11.3	Calculation of the migration rate of the measured substances	
11.4	Calculation of the mean migration rate	
12	Test report	
12.1	Introduction	
12.2	General information	
12.3 12.4	Information on the productInformation on reference concrete mixes and test pieces	
12.4	Information on the test procedure	
12.6	Test results (see Table 2)	
	x A (normative) Testing and assessing migration of substances from the consti	tuents of
A.1	General	19

A.2	Method	19
A.3	Normative references	20
A.4	Terms and definitions	20
A.5	Principle	20
A.6	Reagents	21
A.7	Apparatus	21
A.8	Reference (or control) concrete	21
A.9	Sampling of constituents	22
A.10	Control mix, test mixes and test pieces	22
A.11	Concrete mixing and compacting procedure	24
A.12	Curing and preconditioning of test pieces	25
A.13	Surface area to volume (S/V) ratio	25
A.14	Test procedure	25
A.15	Test arrangement	25
A.16	Assessment of unapproved constituents	26
A.17	Analysis	26
A.18	Calculation of test results	27
A.19	Test report	28
Annex	x B (normative) Testing and assessing migration of substances from the constituent mortars	
B.1	General	29
B.2	Method	29
B.3	Normative references	30
B.4	Terms and definitions	30
B.5	Principle	30
B.6	Reagents	31
B.7	Apparatus	31
B.8	Reference (or control) mortar	31
B.9	Sampling of constituents	32
B.10	Control mix, test mix and test pieces	32
B.11	Mortar mixing and compacting procedure	34
B.12	Curing and preconditioning of test pieces	34
B.13	Surface area to volume (S/V) ratio	34
B.14	Test procedure	34
B.15	Test arrangement	34
B.16	Assessment of unapproved constituents	35
B.17	Analysis	35

B.18	Calculation of test results	36
B.19	Test report	37
Annex	C (normative) Testing and assessing migration of substances from associated non-cerbased products/materials	
C.1	Introduction	38
C.2	Method	38
C.3	Normative references	39
C.4	Terms and definitions	39
C.5	Principle	39
C.6	Reagents	39
C.7	Apparatus	39
C.8	Reference (or control) concrete/mortar	39
C.9	Sampling of constituents and unapproved products	39
C.10	Control mix, test mix and test pieces	40
C.11	Concrete/mortar mixing and compacting procedure	40
C.12	Curing and preconditioning of test pieces	40
C.13	Surface area to volume (S/V) ratio	41
C.14	Test procedure	41
C.15	Test arrangement	41
C.16	Assessment of unapproved products	41
C.17	Analysis	41
C.18	Calculation of test results	41
C.19	Test report	42
Annex	D (informative) Examples of typical test pieces and test conditions as a function of S/V	
Annex	E (informative) Test arrangements for site-applied cement based materials and association on-cement based products/materials	
Annex	F (normative) Additional procedures for testing site-applied cement based productional temperature	
F.1	General	46
F.2	Test procedure at elevated temperature	46
F.3	Control samples (blank test)	46
F.4	Expression of results	46
F.5	Reporting	46
Annex	G (informative) Discrimination between porous and non-porous coating on site appropriate cement based products	
G.1	Principle	47
G.2	Apparatus	47

G .3	Materials and reagents	47
G.4	Test procedure	47
G.5	Determination of pH	48
G.6	Expression of results	48
G.7	Classification criteria	48
Anne	x H (informative) Schematic description of the test procedure	49
H.1	Preconditioning	49
H.2	Production of migration water at 23 °C	49
Н.3	Typical schedule	51
Anne	x I (informative) Procedural tests using standard additions (positive control)	52
Bibliography		53

European foreword

This document (EN 14944-4:2025) 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 November 2025, and conflicting national standards shall be withdrawn at the latest by November 2025.

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

This document 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 document 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 hardened cement based site-applied or site-formed materials (including pre-packaged mortars) into test waters after contact with the products. It also covers determination of migration from individual constituents of cement based products and materials (see Annexes A and B) and from associated non-cement based products for approval purposes (see Annex C).

Site-applied or site-formed cement based materials which cannot be cast as cubes or prisms e.g. some spray applied systems, fall in the scope of EN 14944–3 and not under this standard.

This document is applicable to site-applied or site-formed cement based materials 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. It is also applicable to individual constituents of cement based products/materials and to associated non-cement based products/materials.

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 are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 196-1, Methods of testing cement — Part 1: Determination of strength

EN 197-1, Cement — Part 1: Composition, specifications and conformity criteria for common cements

EN 206:2013+A2:2021, Concrete — Specification, performance, production and conformity

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

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

EN 14944-3, Influence of cementitious products on water intended for human consumption — Test methods — Part 3: Migration of substances from factory-made cementitious products

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)

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