

Irish Standard Recommendation S.R. CEN/TR 14245:2020

Cement - Guidelines for the application of EN 197-2: Assessment and verification of constancy of performance

© CEN 2020 No copying without NSAI permission except as permitted by copyright law.

#### S.R. CEN/TR 14245:2020

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R.~xxx: Standard~Recommendation-recommendation~based~on~the~consensus~of~an~expert~panel~and~subject~to~public~consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

Published:

CEN/TR 14245:2020

2020-03-11

This document was published under the authority of the NSAI ICS number:

and comes into effect on:

91.100.10

2020-03-29

NOTE: If blank see CEN/CENELEC cover page

Sales:

NSAI T +353 1 807 3800

1 Swift Square, F+353 1 807 3838 Northwood, Santry E standards@nsai.ie Dublin 9

T+353 1 857 6730 F+353 1 857 6729

W NSAl.ie

W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

#### National Foreword

S.R. CEN/TR 14245:2020 is the adopted Irish version of the European Document CEN/TR 14245:2020, Cement - Guidelines for the application of EN 197-2: Assessment and verification of constancy of performance

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This is a free page sample. Access the full version online.

This page is intentionally left blank

TECHNICAL REPORT

**CEN/TR 14245** 

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

March 2020

ICS 91.100.10

Supersedes CEN/TR 14245:2014

### **English Version**

# Cement - Guidelines for the application of EN 197-2: Assessment and verification of constancy of performance

Ciment - Lignes directrices pour l'application de l'EN 197-2 - Evaluation de la conformité Zement - Richtlinien für die Anwendung der EN 197-2: Bewertung und Überprüfung der Leistungsbeständigkeit

This Technical Report was approved by CEN on 8 December 2019. It has been drawn up by the Technical Committee CEN/TC 51.

CEN members are the national standards bodies of 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, Turkey and United Kingdom.



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

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

Cont	Contents	
Europ	pean foreword	4
Intro	luction to this Guidelines Document	5
1	Scope	6
2	Normative references	6
3	Terms and definitions	
4	Factory production control	
4.1 4.1.1	General requirements Concept	
4.1.1 4.1.2	Works' quality documentation	
4.1.2 4.1.3		
4.1.3 4.1.4	Quality management systemSystem of documentation	
4.1.4	Internal quality control	
4.2.1	Process control	
4.2.1	Measuring and testing	
4.2.3	Handling, storage, packaging and delivery	
4.3	Autocontrol testing of samples	
4.3.1	Sampling and testing	
4.3.2	Corrective action	
4.3.3	Measuring and test equipment for autocontrol testing	
4.3.4	Quality records	
5	Tasks for the purpose of certification	
5.1	Assessment of the performance of the cement	
5.2 5.2.1	Initial inspection of the manufacturing plant and of factory production control  Inspection of a new factory	
5.2.1	Inspection of a new factory	
5.2.2 5.2.3	Criteria for the assessment of the production equipment	
5.2.4	Criteria for the assessment of the production equipment	
5.2.4	Continuing surveillance, assessment and evaluation of factory production control	
5.3.1	Inspection of the factory and the factory production control	
5.3.2	Evaluation of the results of autocontrol testing of samples	
5.4	Audit-testing of samples taken at the factory/depot	29
5.4.1	Sampling	
5.4.2	Testing	
5.4.3	Evaluation of test results	
5.5	Reports	
5.6	Actions to be taken in the event of non-conformity	
5.6.1	Following inspection of the factory production control and evaluation of the results	
=	of autocontrol testing	
5.6.2	Following evaluation of the results of the audit-testing	
6	Procedure for certification of constancy of performance of the product	33
Anne	x A (normative) Evaluation of the representativeness and the accuracy of the 28 day	
	strength test results	36
<b>A.1</b>	General	36
A.2	Sets of results considered	36

# This is a free page sample. Access the full version online. S.R. CEN/TR 14245:2020

### CEN/TR 14245:2020 (E)

<b>A.3</b>	Evaluation procedure	36
A.3.1	Introduction	36
A.3.2	Symbols	36
A.3.3	Evaluation of whether set A and set B belong to the same population (sampling error check)	37
A.3.4	Comparison between set B and set C in order to check the accuracy of the autocontrol testing (testing error check)	38
A.3.5	Masonry cement	38
A.3.6	Calcium aluminate cement	38
Annex	B (informative) Procedure for certification of constancy of performance of cement	39
Biblio	graphy	40

## **European foreword**

This document (CEN/TR 14245:2020) has been prepared by Technical Committee CEN/TC 51 "Cement and building limes", the secretariat of which is held by NBN.

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 CEN/TR 14245:2014.

Compared with CEN/TR 14245:2014, the following changes have been made:

- The Guidelines Document follows the changes made in EN 197-2;
- Guidance relating to AVCP for distributors and importers has been inserted in the Guidelines Document.

### **Introduction to this Guidelines Document**

### **Purpose**

The purpose of this document is to provide explanatory detail on points not fully elaborated in EN 197-2. It is intended for use by all parties involved in the certification of cement following EN 197-2.

It is an objective of this Guidelines Document that its use will assist in the establishment of equivalent procedures for certification of cement. It is expected that, following this document, traditional good procedures and practices that can be different can continue to be used, provided that they are not in contradiction with EN 197-2 and the relevant product specification standard. Such existing good procedures and practices, applied in conjunction with these Guidelines, are not considered to be an impediment to the achievement of the uniform level of certification throughout Europe, and by different product certification bodies.

This document is based on existing situations for production, assessment and verification of constancy of performance of cements. In case of situations different to those included in this document, specific procedures should be elaborated on a case by case decision and be fully recorded and approved. These specific procedures should always fulfil the specifications given in EN 197-1 and EN 197-2 and lead to the same level of confidence in product that would be achieved by application of this document.

#### Arrangement

The clause numbering system of EN 197-2 is followed. The text of each of the clauses of the European Standard is reproduced in full and is followed by guidance, which is provided only for those clauses where clarification or elaboration is needed.

### Clauses of EN 197-2

- 1 Scope
- 2 Normative references
- 3 Terms and definitions
- 4 Factory production control
- 5 Tasks for the purpose of certification
- 6 Procedure for certification of constancy of performance of the product

Table 1

Annexes A and B

### 1 Scope

This document specifies the scheme for the assessment and verification of constancy of performance (AVCP) of cements, including certification of constancy of performance.

The document provides technical rules for factory production control, further testing of samples taken at the manufacturing plant (autocontrol testing) and assessment of the performance of the cement, initial inspection of the manufacturing plant and of factory production control, continuing surveillance, assessment and evaluation of factory production control and audit-testing of samples. It also provides rules for actions to be followed in the event of non-conformity and requirements for depots.

In this document, the word "cement" is used to refer both to common cements as defined in EN 197-1 and to other cements and binders for which the relevant product specification standard makes reference to this document and which are submitted for certification. Such a cement is produced at a given factory and belongs to a particular type and a particular strength class, as defined and specified in the relevant product specification standard.

The guidelines given in the Technical Report CEN/TR 14245 contain information for the application of this document.

This document is linked with Annexes ZA of European Standards covering cements and binders, i.e. EN 197-1, EN 14216, EN 14647, EN 413-1 and EN 15743.

NOTE The reason for having drafted this separate document is that the provisions it includes are applicable to different products covered by different European Standards.

### **Guidance**

EN 197-2 deals with the assessment and verification of constancy of performance (AVCP) of cements and binders that are submitted for certification. It deals in particular with cases where "further testing" of the product is undertaken, as is the case for attestation system 1+ under the Construction Products Regulation. The products for which EN 197-2 is applicable are: the common cement products and the low heat cements and the sulfate resisting cements, refer to EN 197-1, the very low heat special cements, refer to EN 14216, the supersulfated cements, refer to EN 15743, the calcium aluminate cements, refer to EN 14647, and the masonry cements, refer to EN 413-1.

#### 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 196-7, Methods of testing cement — Part 7: Methods of taking and preparing samples of cement

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

EN 413-1, Masonry cement — Part 1: Composition, specifications and conformity criteria

EN 14647, Calcium aluminate cement — Composition, specifications and conformity criteria

EN 15743, Supersulfated cement — Composition, specifications and conformity criteria



This is a free preview	<ul> <li>Purchase the entire</li> </ul>	e publication at the link below:
------------------------	---	----------------------------------

**Product Page** 

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation