# Cement Časť 5: Portlandský kompozitný cement CEM II/C-M a kompozitný cement CEM VI 72 2101

Cement - Part 5: Portland-composite cement CEM II/C-M and Composite cement CEM VI

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

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### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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#### **English Version**

## Cement - Part 5: Portland-composite cement CEM II/C-M and Composite cement CEM VI

Ciment - Partie 5 : Ciment Portland composé CEM II/C-M et Ciment composé CEM VI Zement - Teil 5: Portlandkompositzement CEM II/C-M und Kompositzement CEM VI

This European Standard was approved by CEN on 8 February 2021.

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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

Cont	rents .	Page
	ean foreword	
Introd	luction	4
1	Scope	5
2	Normative references	
3	Terms and definitions	
4	Constituents and composition	
5	Requirements	
6	Standard designation	
7	Conformity criteria	8
8	Attestation of conformity	8
9	Marking and labelling	9
Biblio	graphygraphy	. 10

#### **European foreword**

This document (EN 197-5:2021) has been prepared by Technical Committee CEN/TC 51 "Cement and building lime", the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by November 2021, and conflicting national standards shall be withdrawn at the latest by November 2021.

The purpose of this document is to specify the requirements for the two more recently developed cement types, Portland-composite cement CEM II/C-M and Composite cement CEM VI, which are not covered by the European Standard EN 197-1:2011. The fitness of these cement types for the intended use to produce structural concrete (reinforced or not) has been experimentally assessed by testing programs developed in the frame of CEN/TC 51/WG 6, the results of which have been included in three dossiers [5, 6, 7] approved by CEN/TC 51.

The cement types and strength classes defined in this document allow the specifier and/or the user to fulfil objectives of sustainability for cement-based constructions and to minimize the use of natural resources in accordance with local conditions of production.

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, Turkey and the United Kingdom.

#### Introduction

It is recognized that different cements have different properties and performance. The performance tests available at the time of publication of this document (i.e. for the determination of setting time, strength, soundness and heat of hydration) have been included in this standard. In addition, work is being carried out by CEN/TC 51 to identify any additional tests which are needed to specify further performance characteristics of cement. Until further performance tests are available it is necessary that the choice of cement, especially the type and/or strength class in relation to the requirements for durability depending on exposure class and type of construction in which it is incorporated, follows the appropriate standards and/or regulations for concrete, mortar, grout etc. valid in the place of use.

The European Committee for Standardization (CEN) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning Portland limestone calcined clay cement given in Clause 4 as a possible CEM II/C-M cement and which is claimed to be relevant for the following clauses of this document: Clause 1 and Clause 4.

CEN takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured CEN that he/she is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with CEN. Information may be obtained from:

Aalborg Portland A/S, 9220 Aalborg Ost, Denmark.

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

#### 1 Scope

This document deals with Portland-composite cement CEM II/C-M, not covered by EN 197-1, and a different type of Composite cement CEM VI, also not covered by EN 197-1, whose intended use is the preparation of concrete, mortar, grout etc.

This document does not cover:

- common cement covered by EN 197-1;
- very low heat special cement covered by EN 14216;
- supersulfated cement covered by EN 15743;
- calcium aluminate cement covered by EN 14647;
- masonry cement covered by 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 197-1:2011, Cement — Part 1: Composition, specifications and conformity criteria for common cements

EN 197-2:2020, Cement — Part 2: Assessment and verification of constancy of performance

EN 196-2, Method of testing cement — Part 2: Chemical analysis of cement

koniec náhľadu – text ďalej pokračuje v platenej verzii STN