



# SLOVENSKI STANDARD

## SIST EN 1504-8:2016

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**Proizvodi in sistemi za zaščito in popravilo betonskih konstrukcij - Definicije, zahteve, kontrola kakovosti in ocenjevanje ter preverjanje nespremenljivosti lastnosti (AVCP) - 8. del: Kontrola kakovosti in ocenjevanje ter preverjanje nespremenljivosti lastnosti (AVCP)**

Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and AVCP - Part 8: Quality control and Assessment and verification of the constancy of performance (AVCP)

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Produkte und Systeme für den Schutz und die Instandsetzung von Betontragwerken - Definitionen, Anforderungen, Qualitätskontrolle und AVCP - Teil 8: Qualitätskontrolle und Bewertung und Überprüfung der Leistungsbeständigkeit

Produits et systèmes pour la protection et la réparation de structures en béton - Définitions, prescriptions, maîtrise de la qualité et EVCP - Partie 8 : Maîtrise de la qualité et Évaluation et vérification de la constance des performances

**Ta slovenski standard je istoveten z: EN 1504-8:2016**

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**ICS:**

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EUROPEAN STANDARD

EN 1504-8

NORME EUROPÉENNE

EUROPÄISCHE NORM

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## Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and AVCP - Part 8: Quality control and Assessment and verification of the constancy of performance (AVCP)

Produits et systèmes pour la protection et la réparation de structures en béton - Définitions, prescriptions, maîtrise de la qualité et EVCP - Partie 8 : Maîtrise de la qualité et évaluation et vérification de la constance des performances (EVCP)

Produkte und Systeme für den Schutz und die Instandsetzung von Betontragwerken - Definitionen, Anforderungen, Qualitätskontrolle und AVCP - Teil 8: Qualitätskontrolle und Bewertung und Überprüfung der Leistungsbeständigkeit (AVCP)

This European Standard was approved by CEN on 12 March 2016.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

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## European foreword

This document (EN 1504-8:2016) has been prepared by Technical Committee CEN/TC 104 “Concrete and related products”, the secretariat of which is held by DIN.

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 2016, and conflicting national standards shall be withdrawn at the latest by February 2018.

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 1504-8:2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

The main changes that have been made in this new edition are as follows:

The wording has been adapted to the CPR (Regulation (EU) No. 305/2011).

EN 1504 consists of the following parts under the general title *Products and systems for the protection and repair of concrete structures — Definitions, requirements, quality control and AVCP*.

- *Part 1: Definitions*
- *Part 2: Surface protection systems for concrete*
- *Part 3: Repair concrete and mortars*
- *Part 4: Structural bonding*
- *Part 5: Concrete injection*
- *Part 6: Anchoring of reinforcing steel bar*
- *Part 7: Reinforcement corrosion protection*
- *Part 9: General principles for the use of products and systems*
- *Part 10: Site application of products and systems and quality control of the works*

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**EN 1504-8:2016 (E)****1 Scope**

This Part of EN 1504 specifies procedures for sampling, quality control, assessment and verification of the constancy of performance (AVCP) including marking and labelling of products and systems for the protection and repair of concrete according to EN 1504-2 to EN 1504-7.

**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 1504-1, *Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 1: Definitions*

EN 1504-2, *Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 2: Surface protection systems for concrete*

EN 1504-3, *Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 3: Structural and non-structural repair*

EN 1504-4, *Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 4: Structural bonding*

EN 1504-5, *Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 5: Concrete injection*

EN 1504-6, *Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 6: Anchoring of reinforcing steel bar*

EN 1504-7, *Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 7: Reinforcement corrosion protection*

**3 Terms and definitions**

For the purposes of this document, the terms and definitions given in EN 1504-1 and the following apply.

**3.1****batch**

quantity of material made in a single operation, or in the case of continuous production for a defined quantity (in tonnes) which shall be demonstrated by the producer to have a uniform composition and shall not exceed one day's production

**3.2****identification test**

test carried out to verify a declared value of the composition or property of the product or system in terms of consistency of the production

Note 1 to entry: This is to ensure that the product or system being tested corresponds to the product or system subjected to the initial type test, within the permitted tolerances.

### 3.3

#### **performance test**

test carried out to verify a value for essential characteristics of the product or system in terms of its specified performance during application and use

Note 1 to entry: This is to ensure that the product or system conforms to its specified performance characteristics.

### 3.4

#### **declared value**

value declared and documented by the manufacturer for identification or essential characteristics

## 4 Sampling

### 4.1 General

Sampling shall be carried out in such a way that the resulting sample is homogeneous and representative of the batch or product to be inspected. Samples shall be clearly labelled to uniquely identify the source, location and time of sampling. The sample size shall be sufficient for all the required testing in accordance with the relevant test method standards.

A part of the sample should be retained for future reference until the use by date.

### 4.2 Record

All information relevant to the sampling shall be recorded, including in particular:

- a) date of manufacture and sampling;
- b) unique identification of the product and of the sample(s);
- c) type of material and quantity of sample(s);
- d) name of the manufacturer;
- e) manufacturer's batch identification number;
- f) quantity of batch or product represented by the sample;
- g) physical state;
- h) colour or appearance;
- i) name(s) of the person(s) responsible for sampling;
- j) method of sampling.

### 4.3 Frequency of sampling

For frequency of sampling see frequency of testing in EN 1504-2 to EN 1504-7.

## 5 Assessment and verification of the constancy of performance (AVCP)

### 5.1 General

The compliance of the products and systems for the protection and repair of concrete structures with the requirement of this standard and with the performances declared by the manufacturer in the DoP shall be demonstrated by:

- determination of the product-type;
- factory production control by the manufacturer, including product assessment.

The manufacturer shall always retain the overall control and shall have the necessary means to take responsibility for the conformity of the product with its declared performance(s).

NOTE The assignment of tasks to the notified bodies and the manufacturer is shown in the Annexes ZA (Table ZA.3 and following Tables) of the relevant part of the EN 1504 series.

### 5.2 Type testing

#### 5.2.1 General

All performances related to characteristics included in this standard shall be determined when the manufacturer intends to declare the respective performances unless the standard gives provisions for declaring them without performing tests: (e.g. use of previously existing data, CWFT and conventionally accepted performance).

Assessment previously performed in accordance with the provisions of this standard, may be taken into account provided that they were made to the same or a more rigorous test method, under the same AVCP system on the same product or products of similar design, construction and functionality, such that the results are applicable to the product in question.

NOTE 1 Same AVCP system means testing by an independent third party [only for products covered by system 1+, 1 and 3], under the responsibility of a notified product certification body [only for products covered by system 1+ and 1].

For the purposes of assessment, the manufacturer's products may be grouped into families, where it is considered that the results for one or more characteristics from any one product within the family are representative for that same characteristics for all products within that same family

NOTE 2 Products may be grouped in different families for different characteristics.

Reference to the assessment method standards should be made to allow the selection of a suitable representative sample.

In addition, the determination of the product-type shall be performed for all characteristics included in the standard for which the manufacturer declares the performance:

- at the beginning of the production of a new or modified product or system for the protection and repair of concrete structures (unless a member of the same product range), or
- at the beginning of a new or modified method of production (where this may affect the stated properties); or
- they shall be repeated for the appropriate characteristic(s), whenever a change occurs in the product or system for the protection and repair of concrete structures design, in the raw material or in the supplier of the components, or in the method of production (subject to the definition of a family), which would affect significantly one or more of the characteristics.



Where components are used whose characteristics have already been determined, by the component manufacturer, on the basis of assessment methods of other product standards, these characteristics need not be re-assessed. The specifications of these components shall be documented.

Products bearing regulatory marking in accordance with appropriate harmonized European specifications may be presumed to have the performances declared in the DoP, although this does not replace the responsibility on the product or system for the protection and repair of concrete structures manufacturer to ensure that the product or system for the protection and repair of concrete structures as a whole is correctly manufactured and its component products have the declared performance values.

### 5.2.2 Test samples, testing and compliance criteria

The number of samples of products and systems for the protection and repair of concrete structures to be tested/assessed shall be as specified by the materials specification part of this standard (EN 1504-2 to EN 1504-7).

### 5.2.3 Test reports

The results of the determination of the product-type shall be documented in test reports. All test reports shall be retained by the manufacturer for at least 10 years after the last date of production of the products and systems for the protection and repair of concrete structures to which they relate.

### 5.2.4 Shared other party results

A manufacturer may use the results of the product-type determination obtained by someone else (e.g. by another manufacturer, as a common service to manufacturers, or by a product developer), to justify his own declaration of performance regarding a product that is manufactured according to the same design (e.g. dimensions) and with raw materials, constituents and manufacturing methods of the same kind, provided that:

- the results are known to be valid for products with the same essential characteristics relevant for the product performance;
- in addition to any information essential for confirming that the product has such same performances related to specific essential characteristics, the other party who has carried out the determination of the product-type concerned or has had it carried out, has expressly accepted<sup>1</sup> to transmit to the manufacturer the results and the test report to be used for the latter's product-type determination, as well as information regarding production facilities and the production control process that can be taken into account for FPC;
- the manufacturer using other party results accepts to remain responsible for the product having the declared performances and he also:
  - a) ensures that the product has the same characteristics relevant for performance as the one that has been subjected to the determination of the product-type, and that there are no significant differences with regard to production facilities and the production control process compared to that used for the product that was subjected to the determination of the product-type; and
  - b) keeps available a copy of the determination of the product-type report that also contains the information needed for verifying that the product is manufactured according to the same design and with raw materials, constituents and manufacturing methods of the same kind.