



# SLOVENSKI STANDARD

## SIST EN 14769:2023

01-november-2023

Nadomešča:  
SIST EN 14769:2012

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### Bitumen in bitumenska veziva - Pospešeno staranje v tlačni posodi (PAV)

Bitumen and bituminous binders - Accelerated long-term ageing conditioning by a Pressure Ageing Vessel (PAV)

Bitumen und bitumenhaltige Bindemittel - Beschleunigte Langzeitalterung mit einem Druckalterungsbehälter (PAV)

Bitumes et liants bitumineux - Vieillissement long-terme accéléré réalisé dans un récipient de vieillissement sous pression (PAV)

Ta slovenski standard je istoveten z: **EN 14769:2023**

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#### **ICS:**

75.140	Voski, bitumni in drugi naftni proizvodi	Waxes, bituminous materials and other petroleum products
91.100.50	Veziva. Tesnilni materiali	Binders. Sealing materials

**SIST EN 14769:2023**

**en,fr,de**



EUROPEAN STANDARD

EN 14769

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2023

ICS 75.140; 91.100.50

Supersedes EN 14769:2012

English Version

## Bitumen and bituminous binders - Accelerated long-term ageing conditioning by a Pressure Ageing Vessel (PAV)

Bitumes et liants bitumineux - Vieillessement long-terme accéléré réalisé dans un récipient de vieillissement sous pression (PAV)

Bitumen und bitumenhaltige Bindemittel - Beschleunigte Langzeitalterung mit einem Druckalterungsbehälter (PAV)

This European Standard was approved by CEN on 28 May 2023.

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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

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

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## European foreword

This document (EN 14769:2023) has been prepared by Technical Committee CEN/TC 336 “Bituminous binders”, 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of an identical text or by endorsement, at the latest by January 2024, and conflicting national standards shall be withdrawn at the latest by January 2024.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 14769:2012.

In comparison with the previous edition, the main technical changes are:

- a) Scope updated;
- b) 3.1 aligned with other standards;
- c) Terms and definitions: update of 3.2, 3.3 and addition of 3.4;
- d) Clause 4 updated editorially;
- e) Clause 5: “accuracy” replaced by “maximum permissible measurement error”;
- f) Apparatus: 5.1.1 updated editorially and reference to (new) 5.1.2 added; 5.1.3 and 5.1.1 merged; 5.3 updated; 5.9 and 5.10 added;
- g) Clause 5.5: calculation of binder mass for other containers moved to 6.4 and cross-references;
- h) Procedure: updated in order to ease understanding, duplications removed;
- i) Clause 6.4: Note 3 changed into standard text and warning removed;
- j) Report updated;
- k) Figure 1: key updated;
- l) Figure 2 editorially updated (layout of key) and renamed into “drawing”;
- m) Bibliography updated.

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.

**EN 14769:2023 (E)****1 Scope**

This document specifies an accelerated long-term ageing/conditioning procedure for bituminous binders. The procedure involves ageing trays of binder at elevated temperatures under pressurized conditions in a pressure ageing vessel (PAV).

**NOTE** For binders to be used in hot and warm asphalt applications, the pre-conditioning of the sample can be performed using one of the methods in the EN 12607 series. For binders to be used in bituminous emulsion and cut-back or fluxed applications, the stabilization of the sample is such that there are no volatiles remaining.

**WARNING** — The use of this document can involve hazardous materials, operations and equipment, in particular, the use of a high pressure ageing vessel. This document does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this document to establish appropriate health and safety practices and determine the applicability of regulatory limitations prior to use. If there is the likelihood of volatile components being present in a binder, this procedure is not used.

**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 12594, *Bitumen and bituminous binders - Preparation of test samples*

EN 12607-1, *Bitumen and bituminous binders - Determination of the resistance to hardening under influence of heat and air - Part 1: RTFOT method*

EN 12607-2:2014, *Bitumen and bituminous binders - Determination of the resistance to hardening under influence of heat and air - Part 2: TFOT method*

EN 12607-3, *Bitumen and bituminous binders - Determination of the resistance to hardening under influence of heat and air - Part 3: RFT method*

EN 13074-2, *Bitumen and bituminous binders - Recovery of binder from bituminous emulsion or cut-back or fluxed bituminous binders - Part 2: Stabilization after recovery by evaporation*

**3 Terms and definitions**

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

**3.1****short-term ageing**

ageing that the binder experiences during the production of asphalt mixtures

**3.2****long-term ageing**

ageing that the binder experiences during its service life in asphalt pavements