



**SLOVENSKI STANDARD**  
**oSIST prEN 15004-2:2025**

**01-marec-2025**

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**Vgrajeni gasilni sistemi - Sistemi za gašenje s plinom - 2. del: Fizikalne lastnosti in načrtovanje sistema za gašenje s plinom za gasilo FK-5-1-12 (ISO 14520-5:2024, spremenjen)**

Fixed firefighting systems - Gas extinguishing systems - Part 2: Physical properties and system design of gas extinguishing systems for FK-5-1-12 extinguishant (ISO 14520-5:2024, modified)

Ortsfeste Brandbekämpfungsanlagen - Löschanlagen mit gasförmigen Löschmitteln - Teil 2: Physikalische Eigenschaften und Anlagenauslegung für Feuerlöschmittel FK-5-1-12 (ISO 14520-5:2024, modifiziert)

Installations fixes de lutte contre l'incendie - Installations d'extinction à gaz - Partie 2 : Propriétés physiques et conception des systèmes des installations d'extinction à gaz pour agent extincteur FK-5-1-12 (ISO 14520-5:2024, modifiée)

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**Ta slovenski standard je istoveten z: prEN 15004-2**

**ICS:**

13.220.10	Gašenje požara	Fire-fighting
13.220.20	Požarna zaščita	Fire protection

**oSIST prEN 15004-2:2025**

**en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN 15004-2**

January 2025

ICS 13.220.20

Will supersede EN 15004-2:2020

English Version

**Fixed firefighting systems - Gas extinguishing systems -  
Part 2: Physical properties and system design of gas  
extinguishing systems for FK-5-1-12 extinguishant (ISO  
14520-5:2024, modified)**

Installations fixes de lutte contre l'incendie -  
Installations d'extinction à gaz - Partie 2 : Propriétés  
physiques et conception des systèmes des installations  
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Eigenschaften und Anlagenauslegung für  
Feuerlöschmittel FK-5-1-12 (ISO 14520-5:2024,  
modifiziert)

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 191.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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## European foreword

This document (prEN 15004-2:2025) has been prepared by Technical Committee CEN/TC 191 “Fixed firefighting systems”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 15004-2:2020.

prEN 15004-2:2025 includes the following significant technical changes with respect to EN 15004-2:2020:

- new specifications for dimers have been added to Table 1;
- Scope: Nominal pressure level 70 bar and 50 bar was added;
- 6.1, Fill density: 70 bar storage containers were added.

The text of the International Standard ISO 14520-5:2024 from Technical Committee ISO/TC 21 “Equipment for fire protection and firefighting” of the International Organization for Standardization (ISO) has been taken over as a European Standard by Technical Committee CEN/TC 191 “Fixed firefighting systems”, the secretariat of which is held by BSI, with common modifications which are indicated by a straight line in the margin of the text.

EN 15004 will consist of the following parts, under the general title *Fixed firefighting systems — Gas extinguishing systems*:

- Part 1: *Design, installation and maintenance*;
- Part 2: *Physical properties and system design of gas extinguishing systems for FK-5-1-12 extinguishant*;
- Part 4: *Physical properties and system design of gas extinguishing systems for HFC 125 extinguishant*;
- Part 5: *Physical properties and system design of gas extinguishing systems for HFC 227ea extinguishant*;
- Part 6: *Physical properties and system design of gas extinguishing systems for HFC 23 extinguishant*;
- Part 7: *Physical properties and system design of gas extinguishing systems for IG-01 extinguishant*;
- Part 8: *Physical properties and system design of gas extinguishing systems for IG-100 extinguishant*;
- Part 9: *Physical properties and system design of gas extinguishing systems for IG-55 extinguishant*;
- Part 10: *Physical properties and system design of gas extinguishing systems for IG-541 extinguishant*;
- Part 11: *Physical properties and systems design of gas extinguishing systems for Halocarbon Blend 55 extinguishant*.

The International Standards ISO 14520-2 and ISO 14520-11, which dealt with CF<sub>3</sub>I and HFC 236fa extinguishants, respectively, have not been implemented by CEN, as CF<sub>3</sub>I is only valid for local application and HFC 236fa extinguishant is only applicable for portable fire extinguishers and local application, respectively, which is not covered by the scope.

**prEN 15004-2:2025 (E)****1 Scope**

This document specifies requirements for gaseous fire-extinguishing systems, with respect to FK-5-1-12 extinguishant. It includes details of physical properties, specification, usage and safety aspects.

This document is applicable only to systems operating at nominal pressures of 25 bar, 34,5 bar, 42 bar, 50 bar and 70 bar<sup>1</sup> with nitrogen propellant. This does not preclude the use of other systems.

**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 15004-1:2024, *Fixed firefighting systems — Gas extinguishing systems — Part 1: Design, installation and maintenance (ISO 14520-1:2023, modified)*

**3 Terms and definitions**

For the purposes of this document, the terms and definitions given in EN 15004-1 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/>

**4 Characteristics and uses****4.1 General**

Extinguishant FK-5-1-12 shall conform to the specifications shown in Table 1.

FK-5-1-12 is a clear, colourless, almost odourless, electrically non-conductive gas with a density approximately 11 times that of air.

The physical properties are shown in Table 2.

FK-5-1-12 extinguishes fires mainly by physical mechanism, but also by chemical mechanism to a limited extent due to noncatalytic flame inhibition.

<sup>1</sup> 1 bar = 0,1 MPa = 10<sup>5</sup> Pa; 1 MPa = 1 N/mm<sup>2</sup>.