

Fixed firefighting systems - Condensed aerosol
extinguishing systems - Part 2: Design, installation and
maintenance

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Fixed firefighting systems - Condensed aerosol extinguishing systems - Part 2: Design, installation and maintenance

Installations fixes de lutte contre l'incendie - Systèmes d'extinction à aérosol - Partie 2 : Calcul, installation et maintenance

Ortsfeste Brandbekämpfungsanlagen - Löschanlagen für kondensierte Aerosole - Teil 2: Planung, Installation und Instandhaltung

This European Standard was approved by CEN on 6 January 2019.

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European foreword

This document (EN 15276-2:2019) has been prepared by Technical Committee CEN/TC 191 "Fixed firefighting systems", the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by September 2019, and conflicting national standards shall be withdrawn at the latest by September 2019.

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 15276-2:2009.

In comparison with the previous edition CEN/TR 15276-2:2009, the following technical modifications have been made:

- the Technical Report CEN/TR 15276-2:2009 has been revised and published as a standard;
- Normative references have been updated;
- Clause 3 "Terms and definitions" has been revised;
- Clause 4 "Use and limitations" has been revised;
- Clause 5 "Safety" has been revised;
- Clause 6 "System design" has been revised;
- 7.5.4 "System isolate switch" has been revised;
- Clause 8 "Detection, alarm and control systems" has been revised;
- Clause 9 "Commissioning and acceptance" has been revised;
- Clause 10 "Inspection" has been revised;
- Annex B "Toxicity Tests" has been added;
- the standard has been editorially revised.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

It has been assumed in the preparation of this document that the execution of its provisions is entrusted to appropriately qualified and experienced people in the specification, design, installation, testing, inspection, operation and maintenance of systems and equipment, for whose guidance it has been prepared, and who can be expected to exercise a duty of care to avoid unnecessary release of extinguishant.

Firefighting systems covered in this document are designed to provide a supply of fixed condensed aerosol extinguishing medium to extinguish fire.

The requirements of this document are made in the light of the best technical data known at the time of writing but, since a wide field is covered, it has been impracticable to consider every possible factor or circumstance that might affect implementation of the requirements.

It is important that the fire protection of a building or plant is considered as a whole. Aerosol extinguishant systems form only a part of the available facilities, but it should not be assumed that their adoption necessarily removes the need to consider supplementary measures, such as the provision of portable fire extinguishers or other mobile appliances for first aid or emergency use, or to deal with special hazards.

Small scale fire tests, comparable with the test methods mentioned in this standard, indicate that aerosol extinguishants can be recognized as effective media for the extinction of certain Class A fires (solid surface burning fires) and Class B and Class C fires according to EN 2, but it should not be forgotten, in the planning of comprehensive schemes, that there can be hazards for which these mediums are not suitable, or that in certain circumstances or situations there can be dangers in their use requiring special precautions.

Advice on these matters can be obtained from the appropriate manufacturer of the aerosol generators or the extinguishing system. Information can also be sought from the appropriate fire authority, the health and safety authorities and insurers. In addition, reference should be made as necessary to other standards and statutory regulations.

It is essential that firefighting equipment, the enclosure and the protected occupancy is carefully maintained and managed to ensure instant readiness when required and effectiveness of the protection.

Condensed aerosol can contain traces of toxic substances like those produced by a fire, and will obscure vision like smoke from fire.

1 Scope

This document specifies requirements and methods for the design, installation and maintenance of condensed aerosol extinguishing systems and the characteristics of the extinguishing media and types of fire for which it is a suitable extinguishing medium.

This document covers the use of condensed aerosol extinguishing systems for total flooding applications.

This document is not applicable to explosion suppression applications.

This document does not cover all legislative requirements. In certain countries specific national regulations apply and take precedence over this document. Users of this document are advised to inform themselves of the applicability or non-applicability for this document by their national responsible authorities.

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.

CEN/TS 54-14, Fire detection and fire alarm systems — Part 14: Guidelines for planning, design, installation, commissioning, use and maintenance

EN 15004-1:2019, *Fixed firefighting systems — Gas extinguishing systems — Part 1: Design, installation and maintenance (ISO 14520-1:2015, modified)*

EN 15276-1:2019, *Fixed firefighting systems — Condensed aerosol extinguishing systems — Part 1: Requirements and test methods for components*

EN 12094-1:2003, *Fixed firefighting systems — Components for gas extinguishing systems — Part 1: Requirements and test methods for electrical automatic control and delay devices*

EN 12094-2, *Fixed firefighting systems — Components for gas extinguishing systems — Part 2: Requirements and test methods for non-electrical automatic control and delay devices*

EN 12094-3, *Fixed firefighting systems — Components for gas extinguishing systems — Part 3: Requirements and test methods for manual triggering and stop devices*

EN 12094-12, *Fixed firefighting systems — Components for gas extinguishing systems — Part 12: Requirements and test methods for pneumatic alarm devices*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15276-1 and the following apply.

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

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

3.1

activation mechanism

automatic or manual activation leading to the physical discharge of extinguishant