

Fixed firefighting systems - Condensed aerosol  
extinguishing systems - Part 1: Requirements and test  
methods for components

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 15276-1:2019 sisaldab Euroopa standardi EN 15276-1:2019 ingliskeelset teksti.	This Estonian standard EVS-EN 15276-1:2019 consists of the English text of the European standard EN 15276-1:2019.
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English Version

**Fixed firefighting systems - Condensed aerosol  
extinguishing systems - Part 1: Requirements and test  
methods for components**

Installations fixes de lutte contre l'incendie - Systèmes  
d'extinction à aérosol - Partie 1 : Exigences et  
méthodes d'essais pour les éléments constitutifs

Ortsfeste Brandbekämpfungsanlagen - Löschanlagen  
für konzentrierte Aerosole - Teil 1: Anforderungen und  
Prüfverfahren für Bauteile

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

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

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## European foreword

This document (EN 15276-1:2019) 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of an identical text or by endorsement, at the latest by October 2019, and conflicting national standards shall be withdrawn at the latest by October 2019.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 15276-1:2009.

In comparison with the previous edition CEN/TR 15276-1:2009, the following technical modifications have been made:

- the Technical Report CEN/TR 15276-1:2009 has been revised and published as a standard;
- Normative references have been updated;
- Clause 3 "Terms and definitions" has been revised;
- 4.5 "End plate and housing" has been revised;
- 5.11.3 "Aerosol flow temperature" has been revised;
- Clause 6 "Marking" has been revised;
- Clause 7 "Test methods" has been revised;
- Annex A "Extinguishing density/coverage test procedure" has been revised;
- 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, approval, 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 be considered as a whole. Aerosol extinguishant systems form only a part, though an important 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.

Aerosol extinguishants have been recognized as effective media for the extinction of 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 fire-fighting equipment be carefully maintained to ensure instant readiness when required. Routine maintenance is liable to be overlooked or given insufficient attention by the owner of the system. It is, however, neglected at peril to the lives of occupants of the premises and at the risk of crippling financial loss. The importance of maintenance cannot be too highly emphasized.

Condensed aerosol can contain traces of toxic substances like those produced by a fire, and will obscure vision like smoke from fire. This standard requires, as a precaution, that the room is evacuated and sealed off whenever a generator is activated — much like recommended response to fires. Precautions include evacuation of the proximity area, criteria for re-entering and other safeguards.

## 1 Scope

This document specifies requirements and test methods for condensed aerosol extinguishing system components.

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.

EN 2, *Classification of fires*

EN 15276-2, *Fixed firefighting systems — Condensed aerosol extinguishing systems — Part 2: Design, installation and maintenance*

EN 60068-2-6:2008, *Environmental testing — Part 2-6: Tests — Test Fc: Vibration (sinusoidal)* (IEC 60068-2-6:2007)

EN 60068-2-30:2005, *Environmental testing — Part 2-30: Tests — Test Db: Damp heat, cyclic (12 h + 12 h cycle)* (IEC 60068-2-30:2005)

ISO 5660-1, *Reaction-to-fire tests — Heat release, smoke production and mass loss rate — Part 1: Heat release rate (cone calorimeter method) and smoke production rate (dynamic measurement)*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15276-2 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 Clearance

#### 3.1.1 electrical clearance

unobstructed air distance between extinguishing system equipment and unenclosed or uninsulated live electrical components not at ground potential