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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

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Foreword

This document (CEN/TR 15276-2:2009) has been prepared by Technical Committee CEN/TC 191 “Fixed firefighting systems”, the secretariat of which is held by BSI.

This document has the general title *Fixed firefighting systems — Condensed aerosol extinguishing systems* and will consist of the following parts:

- Part 1: *Requirements and test methods for components;*
- Part 2: *Design, installation and maintenance.*

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.

Product certification: Users of this document are advised to consider the desirability of independent certification of product conformity with this document based on testing and continuing surveillance, which may be coupled with assessment of manufacturer quality systems against EN ISO 9001.

Fire-fighting 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 to the working group 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 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 may be hazards for which these mediums are not suitable, or that in certain circumstances or situations there may 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 may 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 national standards and statutory regulations.

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

Condensed aerosol may 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 as stated in paragraph 5.

1 Scope

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

This document also covers the use of condensed aerosol extinguishing systems for total flooding applications in normally unoccupied and unoccupiable areas, primarily related to buildings, plant and other specific applications, utilising electrically non-conducting aerosol fire extinguishants and for which there are sufficient data available to enable validation of performance characteristics by an appropriate independent authority.

This document is intended as a standard covering solely condensed aerosol.

This document is not applicable to explosion suppression applications.

This document is not intended to indicate approval of the extinguishants listed herein by the appropriate authorities, as other extinguishants may be equally acceptable.

This document is applicable to the extinguishants which fulfil CEN/TR 15276-1.

2 Normative references

The following referenced documents are indispensable for the application 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 54 (all parts), *Fire detection and fire alarm systems*

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

CEN/TR 15276-1:2009, *Fixed firefighting systems — Condensed aerosol extinguishing systems — Part 1: Requirements and test methods for components*

EN 50110, *Operation of electrical installations*