First edition
2003-06-15

Gaseous media fire-extinguishing systems — Area coverage fire test procedure — Engineered and pre-engineered extinguishing units

Systèmes d'extinction d'incendie utilisant des agents gazeux — Mode opératoire de couverture de la zone enflammée — Unités extinctrices centralisées et modulaires

Reference number
ISO/TS 20885:2003(E)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of normative document:

— an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;

— an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/TS 20885 was prepared by Technical Committee ISO/TC 21, *Equipment for fire protection and fire fighting*, Subcommittee SC 8, *Gaseous media fire extinguishing systems*.

Introduction

The need for the tests specified in this Technical Specification arises from the fact that the Class A fire test currently used, which employs wood crib, heptane pan and heptane can test fires in an enclosure of 100 m^3, may not indicate extinguishing concentrations suitable for the protection of plastics fuel hazards such as may be encountered in electronic data processing, telecommunications and process control facilities.

The test protocol which forms the subject of this Technical Specification was developed by a special working group of ISO/TC 21/SC 8. It comprises tests for determination of the extinguishing concentrations and system performance, and is designed to allow individual installers to use their system and to carry out all of the extinguishing tests themselves. Different extinguishing concentrations are proposed that may result from tests involving the same fuel/agent combination; in addition different nozzles and nozzle heights are used in order to reflect various room heights and fire behaviour. Owing to the fact that the given extinguishing concentrations for each agent are only dependent on fuel and not on the type of system, the working group proposes to separate the agent tests (determination of extinguishing concentrations) from the system tests.

In the future, ISO/TC 21/SC 8 intends to restructure the current Annex C of ISO 14520-1:2000, *Gaseous fire-extinguishing systems — Physical properties and system design — Part 1: General requirements* to include polymeric sheet fuel arrays [polymethyl methacrylate (PMMA), polypropylene (PP) and acrylonitrile-butadiene-styrene (ABS)] and polyvinyl chloride (PVC) cable arrays (heptane pan ignited).