INTERNATIONAL STANDARD

ISO 7203-3

Second edition
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Fire extinguishing media — Foam concentrates —

Part 3: Specification for low-expansion foam concentrates for top application to water-miscible liquids

Agents extincteurs — Émulseurs —

Partie 3: Spécifications pour les émulseurs bas foisonnement destinés à une application par le haut sur les liquides miscibles à l'eau

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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.

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 7203-3 was prepared by Technical Committee ISO/TC 21, *Equipment for fire protection and fire fighting*, Subcommittee SC 6, *Foam and powder media and fixed firefighting system using foam and powder*.

This second edition cancels and replaces the first edition (ISO 7203-3:1999), which has been technically revised.

ISO 7203 consists of the following parts, under the general title *Fire extinguishing media — Foam concentrates*:

— *Part 1: Specifications for low-expansion foam concentrates for top application to water-immiscible liquids*

— *Part 2: Specification for medium- and high-expansion foam concentrates for top application to water-immiscible liquids*

— *Part 3: Specification for low-expansion foam concentrates for top application to water-miscible liquids*

Introduction

Firefighting foams are widely used to control and extinguish fires of flammable liquids and for inhibiting reignition. They can also be used to prevent the ignition of flammable liquids and, in certain conditions, extinguish fires of solid combustibles.

Foams can be used in combination with other extinguishing media, particularly halons, carbon dioxide and powders, which are the subject of other International Standards including ISO 5923, ISO 6183, ISO 7201-1, ISO 7201-2 and ISO 7202. A specification for foam systems [ISO 7076 (all parts)[1)]] designed in accordance with this part of ISO 7203 is being prepared and will be published as ISO 7076 (all parts).

Attention is drawn to Annex J, which deals with the compatibility of foam concentrates, and the compatibility of foams and powders.

1) To be published.

Fire extinguishing media — Foam concentrates —

Part 3: Specification for low-expansion foam concentrates for top application to water-miscible liquids

1 Scope

This part of ISO 7203 specifies the essential properties and performance of liquid foam concentrates used to make low-expansion foams for the control, extinction and inhibition of reignition of fires of water-miscible liquids. Minimum performance on certain test fires is specified.

These foams are suitable for top application to fires of water-miscible liquids. Those foams that also comply with ISO 7203-1 are also suitable for top application to fires of water-immiscible liquids.

The foam concentrates can be suitable for use in non-aspirating sprayers or for subsurface application to liquid fires, but requirements specific to those applications are not included in this part of ISO 7203.

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.

ISO 304, *Surface active agents — Determination of surface tension by drawing up liquid films*

ISO 3104, *Petroleum products — Transparent and opaque liquids — Determination of kinematic viscosity and calculation of dynamic viscosity*

ISO 3219, *Plastics — Polymers/resins in the liquid state or as emulsions or dispersions — Determination of viscosity using a rotational viscometer with defined shear rate*

ISO 3310-1, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*

ISO 3734, *Petroleum products — Determination of water and sediment in residual fuel oils — Centrifuge method*

ISO 7203-2, *Fire extinguishing media — Foam concentrates — Part 2: Specification for medium- and high-expansion foam concentrates for top application to water-immiscible liquids*

BS 5117-1.3, *Testing corrosion inhibiting, engine coolant concentrate ('antifreeze'). Methods of test for determination of physical and chemical properties. Determination of freezing point*