BS 8468-3.2:2020

BSI Standards Publication

Respiratory protective devices for use against chemical, biological, radiological and nuclear (CBRN) agents

Part 3.2: Air-purifying devices incorporating a hood for escape — Specification

bsi.

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Foreword

Publishing information

This part of BS 8468 is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 August 2020. It was prepared by Technical Committee PH/4, *Respiratory protection*. A list of organizations represented on this committee can be obtained on request to its committee manager.

Supersession

This part of BS 8468 supersedes BS 8468-3.2:2009, which is withdrawn.

Relationship with other publications

BS 8468 is published in the following parts:

- Part 1: *Positive pressure, self-contained, open-circuit breathing apparatus – Specification;*
- Part 2: *Negative pressure, air purifying devices with full face mask – Specification;*
- Part 3.1: *Self-contained open-circuit compressed air breathing apparatus incorporating a hood for escape – Specification*;
- Part 3.2: *Air-purifying devices incorporating a hood for escape – Specification;*
- Part 4: *Powered air purifying respirators – Specification;*
- Part 5: *Combined and multi-functional apparatus – Specification*;
- Part 6.1: *Positive-pressure compressed air line equipment – Specification;*
- Part 6.2: *Constant flow compressed air line equipment – Specification;*
- Part 7: *Closed-circuit breathing apparatus – Specification;*
- Part 8: *Test methods.*

This standard can be used in conjunction with BS 8467, which categorizes and specifies requirements and test methods for personal protective ensembles against CBRN agents.

Information about this document

This is a full revision of the standard, and introduces the following principal changes:

- the test for permeation penetration has been moved to the new BS 8468-8;
- the requirement for inward leakage has been modified; and
- the terms and definitions have been updated.

This publication can be withdrawn, revised, partially superseded or superseded. Information regarding the status of this publication can be found in the Standards Catalogue on the BSI website at bsigroup.com/standards, or by contacting the Customer Services team.

Where websites and webpages have been cited, they are provided for ease of reference and are correct at the time of publication. The location of a webpage or website, or its contents, cannot be guaranteed.

Use of this document

It has been assumed in the preparation of this part of BS 8468 that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. "organization" rather than "organisation").

Requirements in this standard are drafted in accordance with *Rules for the structure and drafting of UK standards*, subclause **G.1.1**, which states, "Requirements should be expressed using wording such as: 'When tested as described in Annex A, the product shall ...'". This means that only those products that are capable of passing the specified test will be deemed to conform to this standard.

Notes and commentaries are provided throughout the text of this standard. Notes give references and additional information that are important but do not form part of the recommendations. Commentaries give background information.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

1 Scope

This British Standard specifies the requirements for air-purifying devices incorporating a hood intended to be used only during escape by emergency responders (e.g. fire, ambulance, police) and adult civilians from areas contaminated by chemical, biological, radiological and nuclear (CBRN) agents.

This British Standard is applicable to Type ES CBRN devices. Type ES CBRN devices provide resistance to liquid and gaseous chemical agent permeation and penetration and provide protection capability against hazardous particulate matter.

This British Standard contains requirements for classification, testing and marking of the devices.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions of this document[1]. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS EN 134, *Respiratory protective devices – Nomenclature of components*

BS EN 143:2000, *Respiratory protective devices – Particle filters – Requirements, testing, marking*

BS EN 403:2004, *Respiratory protective devices for self-rescue – Filtering devices with hood for escape from fire – Requirements, testing, marking*

BS EN 13274-4:2001, *Respiratory protective devices – Methods of test – Part 4: Flame tests*

BS EN ISO 16972, *Respiratory protective devices – Vocabulary and graphical symbols*

3 Terms and definitions

For the purposes of this part of BS 8468-3, the terms and definitions given in BS EN ISO 16972 and BS EN 134 and the following apply.

3.1 chemical agent

toxic chemical that can be disseminated to cause harm

NOTE Chemical agents include chemical warfare agents and toxic industrial chemicals.

3.2 biological agent

micro-organism that is a pathogen and that has the potential to be used intentionally to cause harm

NOTE Human pathogens are relevant to RPD selection.

3.3 radiological agent

substance that emits ionizing radiation and that could be disseminated to cause harm

3.4 nuclear agent

radioactive matter resulting from a nuclear explosion or accidental release from a nuclear facility

3.5 bulk packaging

packaging supplied by the manufacturer, which can include outer packaging to protect singles or multiples of the product in transit and in supply chain storage

[1] Documents that are referred to solely in an informative manner are listed in the Bibliography.

