

Protective clothing against radioactive contamination —

Part 1: Requirements and test methods for ventilated protective clothing against particulate radioactive contamination

The European Standard EN 1073-1:1998 has the status of a
British Standard

ICS 13.280; 13.340.10

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee PH/3, Protective clothing, to Subcommittee PH/3/10, Protection against radioactive contamination, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 10, an inside back cover and a back cover.

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English version

Protective clothing against radioactive contamination — Part 1: Requirements and test methods for ventilated protective clothing against particulate radioactive contamination

Vêtements de protection contre la contamination
radioactive — Partie 1: Exigences et méthodes
d'essais des vêtements de protection ventilés contre
la contamination radioactive sous forme de
particules

Schutzkleidung gegen radioaktive Kontamination —
Teil 1: Anforderungen und Prüfverfahren für
belüftete Schutzkleidung gegen radioaktive
Kontamination durch feste Partikel

This European Standard was approved by CEN on 23 November 1997.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 162, Protective clothing including hand and arm protection and lifejackets, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by July 1998, and conflicting national standards shall be withdrawn at the latest by July 1998.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

The annex A is normative and contains the activity sequence for the testing of the protection factor.

Further parts of this standard will deal with requirements and test methods for unventilated protective clothing and protection against liquids and gases.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This European Standard specifies the requirements and test methods for ventilated protective clothing protecting the wearer against particulate radioactive contamination.

This European Standard does not apply for the protection against ionizing radiation and the protection of patients against contamination with radioactive substances by diagnostic and/or therapeutic measures.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- EN 146, *Respiratory protective devices — Powered filtering devices incorporating helmets or hoods — Requirements, testing, marking*
 EN 270, *Respiratory protective devices — Compressed air line breathing apparatus incorporating a hood — Requirements, testing, marking*
 EN 340, *Protective clothing — General requirements*
 EN 530, *Abrasion resistance of protective clothing material — Test methods*
 EN 863, *Protective clothing — Mechanical properties — Test method: Puncture resistance*
 prEN 943-1, *Protective clothing for use against liquid and gaseous chemicals, including liquid aerosols and solid particles — Performance requirements for ventilated and non-ventilated “gas-tight” (Type 1) and “non-gas-tight” (Type 2) protective clothing*
 EN 1146, *Respiratory protective devices for self-rescue — Self-contained open-circuit compressed air breathing apparatus incorporating a hood (compressed air escape apparatus with hood) — Requirements, testing, marking*
 EN 25978, *Rubber- or plastics-coated fabrics — Determination of blocking resistance (ISO 5978:1990)*
 EN 29073-4, *Textiles — Test methods for nonwovens — Part 4: Determination of tear resistance*
 ISO 5082:1982, *Textiles — Woven fabrics — Determination of breaking strength — Grab method*
 ISO 7854, *Rubber- or plastics-coated fabrics — Determination of resistance to damage by flexing*

3 Definitions

For the purposes of this standard the following definitions apply:

3.1

protective clothing against radioactive contamination

protective clothing intended to provide protection to the skin and if required, to the respiratory tract against radioactive contamination

3.2

ventilated protective clothing (against particulate radioactive contamination)

protective clothing which is supplied with breathable air ensuring internal ventilation and overpressure. This protective clothing provides protection against particulate radioactive contamination for the respiratory tract and the whole body

3.3

nominal protection factor (100: inward leakage, IL)

the ratio of the concentration of contaminant in the ambient atmosphere to the concentration of the contaminant in the suit. The concentrations taken into account are the average concentrations recorded during a standardized test

3.4

particulate radioactive contamination

presence of radioactive substances in or on a material or in a place where they are undesirable or could be harmful

3.5

seam

a permanent fastening between two or more pieces of protective clothing material

3.6

assemblage

a permanent fastening between two or more different garments, or between protective clothing and accessories, obtained, for example by sewing, welding, vulcanizing, gluing

3.7

join

a non-permanent fastening between two different garments, or between protective clothing and accessories

3.8

closure

a device, for example, zipper, “touch and close” fastener, etc., to close openings for donning or removing the protective clothing