

General requirements for gloves

The European Standard EN 420:1994 has the status of a
British Standard

UDC 614.896.2:614.876:687.17:620.1

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This British Standard, having been prepared under the direction of the Personal Safety Equipment Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 July 1994

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The following BSI references relate to the work on this standard:
Committee reference PSM/37
Draft for comment 90/48878 DC

ISBN 0 580 21682 9

Amendments issued since publication

Amd. No.	Date	Comments
8515	February 1995	Indicated by a sideline in the margin

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National foreword

This British Standard has been prepared under the direction of the Personal Safety Equipment Standards Policy Committee and is the English language version of EN 420 *General requirements for gloves*, published by the European Committee for Standardization (CEN). It partly supersedes BS 1651:1986 which is withdrawn.

EN 420 was produced as a result of international discussions in which the United Kingdom took an active part.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 16 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

UDC 614.896.2:614.876:687.17:620.1

Descriptors: Personal protective equipment, work clothing, protection clothing, gloves, classification, design, dimensions, effectiveness, permeability, marking

English version

General requirements for gloves

Exigences générales pour les gants

Allgemeine Anforderungen für Handschuhe

This European Standard was approved by CEN on 1994-03-02. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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CEN

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

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Ref. No. EN 420:1994 E

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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.

It has been prepared under a mandate given to CEN by the Commission of the European Communities and the European Free Trade Association, and supports essential requirements of EC Directive(s).

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 September 1994, and conflicting national standards shall be withdrawn at the latest by September 1994.

Annexes designated “normative” are part of the body of the standard. Annexes designated “informative” are given only for information. In this standard annex A is normative and annexes B and C are informative.

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

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0 Introduction

This European Standard is a reference standard to be called up as appropriate by the specific European Standards relevant or applicable to protective gloves.

A non exhaustive list of these standards is given in annex C.

This European Standard includes test methods and specifications already used and validated in several national standards.

They will be reviewed by CEN/TC 162/WG8 and further developed so as to provide more data and expand their scope to all types of protective gloves. This applies in particular to hand and glove dimensions, determination of pH value, water vapour transmission and absorption.

1 Scope

This standard defines the general requirements for ergonomics, glove construction, high visibility, innocuousness, cleaning, comfort and efficiency, marking and information applicable to all protective gloves.

It is also applicable to gloves permanently incorporated in containment enclosures.

It is not applicable to the following glove types:

- a) electrician's gloves (see EN 60903);
- b) medical gloves (see EN 455).

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 340, *General requirements for protective clothing*.

EN 407, *Protective gloves against thermal hazards (heat and/or fire)*.

EN 455, *Medical gloves for single use*.

EN 471, *High visibility warning clothing*.

EN 60903, *Specification for gloves and mitts of insulating material for live working*.

ISO 3758:1991, *Textiles care labelling code using symbols*.

ISO 4044:1977, *Leather — Preparation of chemical test samples*.

ISO 4045:1977, *Leather — Determination of pH*.

IVP 15, *Measurement of water vapour permeability*¹⁾.

3 Definitions

For the purposes of this standard, the following definitions apply (see Figure 1).

3.1 hand

part of the body from the tip of the middle finger to the wrist

3.2 glove

personal protective equipment (PPE) which protects the hand or part of the hand against hazards. It can additionally cover part of the forearm and arm

3.3 glove palm

part of the glove which covers the palm of the hand

3.4 glove back

part of the glove which covers the back of the hand

3.5 dexterity

manipulative ability to perform a task

NOTE Dexterity is related to the thickness of glove material, its elasticity and its deformability.

3.6 hazard

situation which can be the cause of any harm or damage to the health of the human body

NOTE Various categories of hazards are to be considered:

- mechanical hazards and static electricity (see EN 388) and vibration (see prEN 30819);
- chemical hazards and microbiological hazards (see EN 374);
- heat and fire (see EN 407);
- cold (see EN 511);
- ionizing radiation (see EN 421).

There are other special applications for which particular gloves are designed, for example gloves for butchers (see prEN 1082) or gloves designed for high visibility (see EN 471).

Each category of hazard of special application may be further subdivided into specific hazards or criteria.

There are multi-hazard situations where there are several potentially simultaneous hazards.

The test methods included in the specific standards listed in the introduction determine the levels of performance against individual hazards.

¹⁾ Can be obtained from International Union of Leather Technologists and Chemists Societies IULTCS, Leather Trade House, Kingspark Road, Moulton Park, Northampton NN3JD, England.