BSI Standards Publication

Protective clothing - Garments for protection against cool environments

National foreword

This British Standard is the UK implementation of EN 14058:2017.
It supersedes BS EN 14058:2004, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PH/3/1, General Personal Protective Equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

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

Published by BSI Standards Limited 2017

ISBN 978 0 580 92270 1

ICS 13.340.10

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

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 December 2017.

Amendments/corrigenda issued since publication

Date	Text affected

EUROPEAN STANDARD **EN 14058**

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2017

ICS 13.340.10

Supersedes EN 14058:2004

English Version

Protective clothing - Garments for protection against cool environments

Habillement de protection - Vêtements de protection contre les environnements frais

Schutzkleidung - Kleidungsstücke zum Schutz gegen kühle Umgebungen

This European Standard was approved by CEN on 4 September 2017.

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Ref. No. EN 14058:2017 E

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European foreword

This document (EN 14058:2017) 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of an identical text or by endorsement, at the latest by May 2018, and conflicting national standards shall be withdrawn at the latest by May 2018.

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

This document supersedes EN 14058:2004.

This document has been prepared under a standardization request 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 Annexes ZA and ZB, which are an integral part of this document.

Regarding the most significant changes that have been made in this new edition, see Annex A.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

In many cases single garments are placed on the market to protect against local body cooling (for ensembles see EN 342). These garments can be e.g. waistcoats, jackets, coats or trousers and/or separable thermal linings. They can provide a certain degree of protection to cool environment for a certain length of time, depending e.g. on the personal constitution and activity, the accompanying clothing and the environmental features (wind speed, temperature, humidity). In critical situations (e.g. combination of cold, moisture and wind, long exposure duration, no help nearby) it is important to assess the cold protection properties of the garment (see Annex C), especially if the user cannot safely identify the risk at moderate low temperatures above −5 °C in an appropriate time.

At moderate low temperatures above −5 °C garments against local body cooling are not only used for outdoor activities e.g. in construction industry but can be used for indoor activities e.g. in food processing industry. In these cases garments often do not need to be made of watertight or air impermeable materials. Therefore, in this European Standard, these requirements are applicable if the manufacturer claims in his instructions for use protection for hazards covered by these properties.

The resultant effective thermal insulation value I_{cler} can be used to assess temperature ranges according to Tables C.1 and C.2.

If exposure to wet conditions is expected, EN 343 applies.

1 Scope

This European Standard specifies requirements and test methods for the performance of garments for protection against the effects of cool environments above −5 °C (see Annex C). These effects comprise not only low air temperatures, but also humidity and air velocity.

Cold protective ensembles are excluded from this standard.

The protective effects and requirements of footwear, gloves and separate head wear are excluded from the scope of this standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 342:2017, *Protective clothing — Ensembles and garments for protection against cold*

EN 20811:1992, *Textiles - Determination of resistance to water penetration - Hydrostatic pressure test*

EN ISO 4674-1:2016, *Rubber- or plastics-coated fabrics — Determination of tear resistance —- Part 1: Constant rate of tear methods (ISO 4674-1:2016)*

EN ISO 9237:1995, *Textiles - Determination of permeability of fabrics to air (ISO 9237:1995)*

EN ISO 11092:2014, *Textiles - Physiological effects - Measurement of thermal and water-vapour resistance under steady-state conditions (sweating guarded-hotplate test) (ISO 11092:2014)*

EN ISO 13688:2013, *Protective clothing - General requirements (ISO 13688:2013)*

EN ISO 13938-1:1999, *Textiles - Bursting properties of fabrics - Part 1: Hydraulic method for determination of bursting strength and bursting distension (ISO 13938-1:1999)*

EN ISO 13938-2:1999, *Textiles - Bursting properties of fabrics - Part 2: Pneumatic method for determination of bursting strength and bursting distension (ISO 13938-2:1999)*

EN ISO 15831:2004, *Clothing - Physiological effects - Measurement of thermal insulation by means of a thermal manikin (ISO 15831:2004)*

ISO 7000:2014, *Graphical symbols for use on equipment — Registered symbols*