

KAITSERIETUS KUUMUSE JA LEEGI VASTU.  
KAITSERIETUSE VÕI SELLE KOOSTISMATERJALI  
SOOJUSÜLEKANDE MÄÄRAMINE KOKKUPUUTEL. OSA 1:  
SOOJENDUSSILINDRI PÕHJUSTATUD KUUMUS  
KOKKUPUUTEL

Clothing to protect against heat and flame -  
Determination of contact heat transmission through  
clothing or constituent materials - Part 1: Contact heat  
produced by heating cylinder (ISO 12127-1:2015)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 12127-1:2015 sisaldab Euroopa standardi EN ISO 12127-1:2015 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 12127-1:2015 consists of the English text of the European standard EN ISO 12127-1:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 23.12.2015.	Date of Availability of the European standard is 23.12.2015.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 13.340.10

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EUROPEAN STANDARD

EN ISO 12127-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2015

ICS 13.340.10

Supersedes EN 702:1994

English Version

**Clothing to protect against heat and flame - Determination  
of contact heat transmission through clothing or  
constituent materials - Part 1: Contact heat produced by  
heating cylinder (ISO 12127-1:2015)**

Vêtements de protection contre la chaleur et la flamme  
- Détermination de la transmission thermique par  
contact à travers les vêtements de protection ou leurs  
matériaux constitutifs - Partie 1 : Transmission  
thermique par contact produite par un cylindre de  
chauffage (ISO 12127-1:2015)

Schutzkleidung gegen Hitze und Flammen -  
Bestimmung des Kontaktwärmedurchgangs durch  
Schutzkleidung oder -materialien - Teil 1: Durch heiße  
Zylinder erzeugte Kontaktwärme (ISO 12127-1:2015)

This European Standard was approved by CEN on 12 September 2015.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## European foreword

This document (EN ISO 12127-1:2015) 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, in collaboration with Technical Committee ISO/TC 94 "Personal safety - Protective clothing and equipment".

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 June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

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

This document supersedes EN 702:1994.

This document 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 document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Endorsement notice

The text of ISO 12127-1:2015 has been approved by CEN as EN ISO 12127-1:2015 without any modification.

**Annex ZA**  
(informative)  
**Relationship between this European Standard and the Essential Requirements of EU Directive 89/686/EEC**

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 89/686/EEC on the approximation of the laws of the Member States relating to personal protective equipment.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard, together with the relevant requirements given in the product standards, confers within the limits of the scope of those standards, a presumption of conformity with the Essential Requirement 3.6.1 of Annex II of that Directive and associated EFTA regulations.

**WARNING** — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

ISO 12127-1 was prepared by Technical Committee ISO/TC 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 13, *Protective clothing*, and by Technical Committee CEN/TC 162, *Protective clothing including hand and arm protection and lifejackets* in collaboration.

This second edition cancels and replaces the first edition (ISO 12127-1:2007), of which it constitutes a minor revision. The following changes have been made:

- a) title, for better comprehension;
- b) alphabetical order, "Terms and definitions";
- c) modified clause for "Heating cylinder" regarding example and pictures;
- d) modified clause for "Calorimeter" regarding more detailed information;
- e) modified clause for "Assembly" regarding speed and picture;
- f) latest standard numbers in clause "Test report";
- g) new [Annex A](#) for "Best practices for cleaning the heating cylinder";
- h) new [Annex B](#) for "Determination of property values for rating and classification".

ISO 12127 consists of the following parts, under the general title *Clothing for protection against heat and flame — Determination of contact heat transmission through protective clothing or constituent materials*:

- *Part 1: Contact heat produced by heating cylinder*
- *Part 2: Test method using contact heat produced by dropping small cylinders*

## Introduction

Protective clothing designed to protect against heat and flame can be exposed to direct contact with hot substances or hot surfaces.

The diversity of such contact conditions makes it difficult to evaluate the hazards that can arise from high temperature.

The test method described in this part of ISO 12127 allows this heat transfer to be assessed when a heating cylinder and the clothing material are brought into contact with each other.

This part of ISO 12127 forms part of a series of standards concerned with clothing designed to protect against heat and fire.