

<b>STN</b>	<b>Ochranné odevy</b> <b>Elektrostatické vlastnosti</b> <b>Časť 5: Materiálové a konštrukčné požiadavky</b>	<b>STN</b> <b>EN 1149-5</b>  83 2709
------------	---	---

Protective clothing - Electrostatic properties - Part 5: Material performance and design requirements

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/19

Obsahuje: EN 1149-5:2018

Oznámením tejto normy sa ruší  
STN EN 1149-5 (83 2709) z júna 2008

**128294**

EUROPEAN STANDARD

EN 1149-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2018

ICS 13.340.10

Supersedes EN 1149-5:2008

English Version

## Protective clothing - Electrostatic properties - Part 5: Material performance and design requirements

Vêtements de protection - Propriétés électrostatiques -  
Partie 5 : Exigences de performance des matériaux et  
de conception

Schutzkleidung - Elektrostatische Eigenschaften - Teil  
5: Leistungsanforderungen an Material und  
Konstruktionsanforderungen

This European Standard was approved by CEN on 30 April 2018.

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, Serbia, 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: Rue de la Science 23, B-1040 Brussels**

**EN 1149-5:2018 (E)**

<b>Contents</b>	<b>Page</b>
<b>European foreword</b> .....	<b>3</b>
<b>Introduction</b> .....	<b>4</b>
<b>1 Scope</b> .....	<b>5</b>
<b>2 Normative references</b> .....	<b>5</b>
<b>3 Terms and definitions</b> .....	<b>5</b>
<b>4 Requirements</b> .....	<b>6</b>
<b>4.1 General</b> .....	<b>6</b>
<b>4.2 Electrostatic requirements</b> .....	<b>6</b>
<b>4.2.1 Material requirements</b> .....	<b>6</b>
<b>4.2.2 Design requirements</b> .....	<b>7</b>
<b>5 Marking</b> .....	<b>8</b>
<b>6 Information supplied by the manufacturer</b> .....	<b>9</b>
<b>Annex A (informative) Explanation</b> .....	<b>10</b>
<b>Annex B (informative) Significant technical changes between this document and the previous edition</b> .....	<b>11</b>
<b>Annex ZA (informative) Relationship between this European Standard and the essential requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment aimed to be covered</b> .....	<b>12</b>
<b>Bibliography</b> .....	<b>13</b>

## **European foreword**

This document (EN 1149-5:2018) 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 March 2019, and conflicting national standards shall be withdrawn at the latest by March 2019.

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 1149-5:2008.

A list of the significant technical differences between this edition and the previous can be found in Annex B.

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 Regulation (EU) 2016/425, see informative Annex ZA, which is an integral part of this document.

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.

**EN 1149-5:2018 (E)****Introduction**

This European Standard is part of a series of standards for test methods and requirements for electrostatic properties of protective clothing. Different parts are necessary, because of the various fields of application and materials.

EN 1149 consists of the following parts, under the general title “Protective clothing – Electrostatic properties”:

- Part 1: Test method for measurement of surface resistivity
- Part 2: Test method for measurement of the electrical resistance through a material (vertical resistance);
- Part 3: Test methods for measurement of charge decay;
- Part 4: Garment test (under development);
- Part 5: Material performance and design requirements.

A complete garment test is under study. As long as such a test is not available, it may not be possible to perform full assessment of the electrostatic properties of protective clothing. This set of standards reflects the current state of knowledge.

Further guidance on the EN 1149 series and on the selection, use, care and maintenance of electrostatic dissipative protective clothing is given in CEN/CLC/TR 16832:2015 [1]<sup>1)</sup>.

---

1) Numbers in square brackets refer to the bibliography.

## 1 Scope

This European Standard specifies material and design requirements for electrostatic dissipative protective clothing, including hoods and caps, used as part of a total earthed system, to avoid incendiary discharges, where the minimum ignition energy of an explosive atmosphere is not less than 0,016 mJ.

In the context of this European Standard, a total earthed system is one in which personnel and other conductors are connected to earth via a resistance of less than  $10^8 \Omega$ .

The material and design requirements do not presume adequate earthing of additional equipment worn or carried in contact with clothing, e.g. breathing apparatus, etc. If such additional equipment is required to be earthed, other requirements beyond the scope of this European Standard may be necessary.

The scope of this standard does not include electrostatic dissipative protective gloves or footwear that are separate and not integral parts of garments.

The material and design requirements may not provide sufficient protection in oxygen enriched flammable atmospheres.

NOTE Additional information about oxygen enriched flammable atmospheres can be found in CEN/CLC/TR 16832:2015 [1].

This European Standard is not applicable for protection against mains voltages.

## 2 Normative references

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

EN 1149-1:2006, *Protective clothing — Electrostatic properties — Part 1: Test method for measurement of surface resistivity*

EN 1149-3:2004, *Protective clothing — Electrostatic properties — Part 3: Test methods for measurement of charge decay*

EN 60079-32-2:2015, *Explosive atmospheres — Part 32-2: Electrostatics hazards — Tests (IEC 60079-32-2:2015)*

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

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**