

**Kaitserõivad. Elektrostaatilised  
omadused. Osa 2: Katsemeetodid  
elektritakistuse mõõtmiseks läbi  
materjali (vertikaaltakistus)**

Protective clothing - Electrostatic properties - Part 2:  
Test method for measurement of the electrical  
resistance through a material (vertical resistance)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1149-2:1999 sisaldab Euroopa standardi EN 1149-2:1997 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1149-2:1999 consists of the English text of the European standard EN 1149-2:1997.</p> <p>This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>Käesolev Euroopa standard määrab kindlaks testimismeetodi kaitseriietuse materjali elektrilise vertikaaltakistuse mõõtmiseks. Käesolev Euroopa standard ei ole kohaldatav vooluvõrgu pingele eest kaitsmise täpseks iseloomustamiseks.</p>	<p><b>Scope:</b></p>
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**ICS** 13.340.10

**Võtmesõnad:** elektriline takistus, elektrostaatiline kaitse, individuaalne kaitsevarustus, kaitseriietus, mõõtmised, testid, õnnetuse vältimine

ICS 13.340.10

Descriptors: Protective clothing, electrical resistance, testing.

**English version**

**Protective clothing – Electrostatic properties**

Part 2: Test method for measurement of the electrical resistance  
through a material (vertical resistance)

Vêtements de protection – Propriétés  
électrostatiques – Partie 2: Méthode  
d'essai pour le mesurage de la  
résistance électrique à travers un  
matériau (résistance verticale)

Schutzkleidung – Elektrostatische  
Eigenschaften – Teil 2: Prüfverfahren  
für die Messung des elektrischen  
Widerstandes durch ein Material  
(Durchgangswiderstand)

This European Standard was approved by CEN on 1997-07-24.

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**CEN**

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

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**

## 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 February 1998, and conflicting national standards shall be withdrawn at the latest by February 1998.

The annex A is informative.

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

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.

## 0 Introduction

This European Standard is part of a series of test methods and requirements for electrostatic properties of protective clothing. The European Standard has been divided into a number of parts due to the differing fields of application and materials.

### 1 Scope

This European Standard specifies a test method for measuring the electrical vertical resistance of protective clothing materials. This European Standard is not applicable for specifying protection against mains voltages.

NOTE: Further information is given in the informative annex A.

## 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 1149-1 : 1995

Protective clothing - Electrostatic properties - Part 1: Surface resistivity (Test methods and requirements)

## 3 Definition

For the purposes of this European Standard the following definition applies:

### 3.1 Vertical Resistance $R_v$

The electrical resistance through a material in ohms as determined by using specified electrodes.

## 4 Test principle

Electrodes are placed on opposite surfaces of the material to be tested. A DC potential is applied to the electrodes and the vertical resistance of the test material is determined.

## 5 Test apparatus

### 5.1 Electrode assembly

#### 5.1.1 General

Electrical contact with the test material shall be established by means of an electrode assembly identical to electrode type A of EN 1149-1. This electrode assembly also determines the measuring geometry, see figure 1.

#### 5.1.2 Test electrode

The test electrode consists of a metal disc (1) approximately 3 mm thick and with a diameter  $d_1 = 50,4$  mm which is secured, under a separating disc of high-insulating material (2), concentrically to a metal guard plate (3). A coaxial plug-in connection (4) provides a means of electrical contact to the metal disc and the guard plate.