

EN1149-1

Protective clothing - electrostatic properties - part 1: surface resistivity

Reference Number: EN 1149-1

Status: European Standard

Scope: This standard defines a test method and requirements for electrostatic properties of protective clothing.

General Requirements

For homogeneous materials the surface resistivity: $< 5 \times 10^{10} \Omega$

For Inhomogeneous materials which are coated or laminated at least one surface shall comply with the requirement: $< 5 \times 10^{10} \Omega$

Inhomogeneous materials containing conducting threads shall have:

- A resistance $< 10^9 \Omega$
- A grid pattern of conducting threads
- A maximum spacing of 10 mm the conducting threads

Design Requirements

- According to EN340
- A two piece suit or a one piece suit:
- Covering the body, arms and legs
- Direct contact with the skin (at neck and wrists, through folds at the end of the garment)
- Width of closure accessories $< 10 \text{ mm}$

Test Method

A cylindrical and annular electrode concentrically arranged (type A: stainless steel, brass type: B). The insulation resistance between inner and outer electrode $> 10^{14}\Omega$.

The specimen is placed on an insulating base plate and the electrode assembly is placed on the specimen. A DC potential of 100 ± 5 V is applied, after 15 ± 1 s the resistance is measured.

The surface resistivity ρ in Ohm: $\rho = k \times R$

k: geometrical factor of the electrode (type A: 19,8 and type B: 5,7)

R: measured resistance

Marking

According to EN340

Information for the user

- According to EN340
- Information that the electrostatic propensity decreases with the number of cleaning procedures and wearing time.
- Information when and how to maintain the electrostatic properties.

Pictogram

