



# ALFATEX

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# ESD CHAIRS - VINYL

COATED FABRICS IN DIFFERENT LOOK FOR  
ESD INDUSTRY, CLEANROOM AND MEDICAL CHAIRS.



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# DATA SHEET ESD ANTISTATIC

**PELKÒ 541**

Characteristics	Test Method	Unit	Value
Composition	ISO 1833 o ISO 5088	%	4% PU - 86% PVC 10% PES
Total weight	ISO 3801 - EN29073/1	$g/m^2$	750 $\pm$ 5%
Usable width	ISO 3932	cm	140 $\pm$ 2%
Thickness	UNI 9947	mm	1,1 $\pm$ 0,05
Length roll		mt	25 $\pm$ 0,5
Colour fastness to artificial light	BS - EN - ISO - 105 - B02	Bluescale	>5
Abrasion resistance	UNI EN ISO 12947 - 2:2000	Cycles	>100.000
Resistance to continual bending	UNI EN ISO 5402 - Baily Test	Cycles	>40.000
Range of electrical conductivity	ANSI ESD STM 11.11 and ANSI ESD STM 2.1	OHM	Surface: DISSIPATIVE Range x10 E5 x10 E6 Backing: CONDUCTIVE < 10 E4
Cleaning	Wash with soap and water. Rinse with clear water. Pat dry with a damp white cloth		



The product it's made based on our experience in accordance with the current state of knowledge, are nonbinding and do not constitute a legal relationship and are not additional obligations from the purchase agreement.



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# ELECTROSTATIC DISCHARGE

Electrostatic discharge (ESD) occurs when there is a swift discharge of electricity between 2 objects with different charges and it can cause permanent damage to electronic devices, particularly those with a low voltage threshold.

## What is ESD?

ESD refers to the release of static electricity when 2 objects come into contact with each other.

The majority of ESD instances are completely harmless, but it can be a rather expensive problem within industrial environments. It could also damage or destroy parts within a computer.



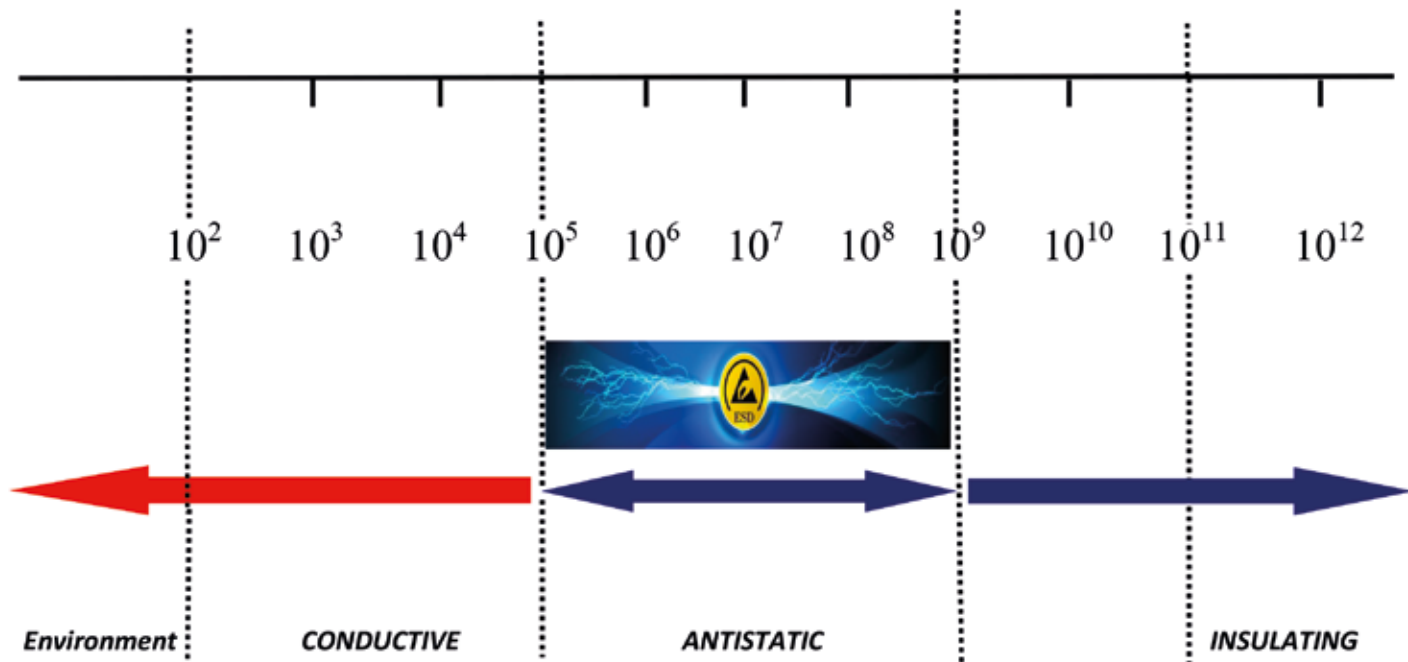
Common examples of ESD include the shock we get when touching a door handle after walking across a carpet, or the static electricity that can be felt from clothes after they've been tumble-dried. A more extreme example is a bolt of lightning.



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# OHM'S LAW



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# HOW DIFFERENT MATERIALS AFFECT ESD

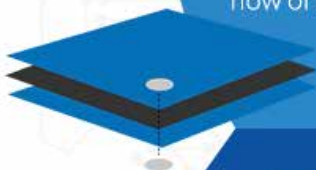
**Insulative materials** have a very high electrical resistance and prevent the flow of electrons across the materials' surface or through its volume.



**Conductive materials** have a low electrical resistance and allow for electrons to flow easily across the materials' surface or through its volume.



**Static dissipative materials** have a medium electrical resistance and allow for the flow of electrons across or through the dissipative material, but this is controlled by the surface or volume resistance of the material



Charged materials also have an **electrostatic field**. When negative, it repels electrons on the material's surface. When positive, it attracts electrons to the surface. Where there is no change in the charge of the material, this results in polarisation.



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Static electricity is the electrical charge acquired by a body by rubbing.

The main factor of this mechanism is the transfer of electrons from one body to another.

By electrostatic charge we mean the amount of electricity of a body electrified by rubbing.

The phenomenon with which the charge is dispersed or the charge is neutralized is called electrostatic discharge, that is the passage of charges from an electrified body to a body having opposite charges.

The human body can act as a conductor and, if isolated from the ground, it can accumulate an electrostatic

The chair is a dissipative vehicle of electrostatic charges and is essential and irreplaceable with respect to all the antistatic equipment, in the development of an anti ESD system, since it has a dual function:

- Prevents the formation of electrostatic charges on the body of the seated person.
- It guarantees the connection of earth through the floor, discharging the static that may have accumulated on the person's body.



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