

OEM Supply of ESD-Safe Flame-Retardant PC & PVC Materials

ESD-Safe PC · ESD-Safe PVC

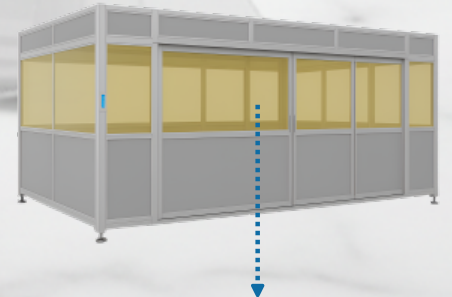
PC · PVC MATERIAL OEM



CLEAN BOOTH
(Application Example of ESD-Safe PC Material)



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| Precision environmental materials that do not allow even 0.5 μm of fine dust

High-durability material with ESD protection, ensuring stability in electronics and semiconductor processes. Cleanroom-compatible to maintain reliability without particle contamination. Meets the demanding standards of OEM clients in high-precision circuit environments.

| Uninterrupted PC material that doesn't even allow a 1% yield loss

Preventing particle intrusion and process errors starts with ESD-safe environments. In semiconductor and display production, static-free clean zones are the first line of defense against yield loss. This invisible layer ensures end products are delivered with both cleanliness and uncompromised quality.

| Standard of process, uninterruptible PC material determines the quality of the environment

Engineered for ESD protection through surface resistivity control, minimizing static discharge risks. Offers 250x the impact strength of glass and 40x that of acrylic, with exceptional clarity. Its high heat resistance and cleanliness make it ideal for yield-critical, precision manufacturing environments.

ESD(Electrostatic Discharge) : A sudden electrostatic discharge can critically damage sensitive electronic components, causing irreversible failure. Controlling ESD is essential in high-precision environments to protect device integrity and ensure operational reliability.



Antistatic material



Anti-combustion
flame-retardant
material



Sensitive circuit
protection



Application to
manufacturing
process



shock-resistant
safety



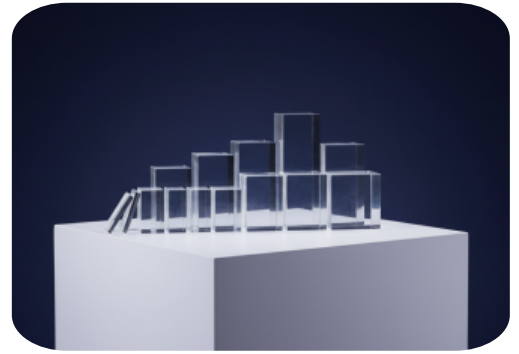
Applies to cover and
exterior material

| Material Features

OEM MATERIAL: PC · PVC

ESD-Safe PC · ESD-Safe PVC flame-retardant material

This advanced PC/PVC compound offers both ESD protection and flame retardancy, minimizing particle contamination in semiconductor and display processes. Certified through RoHS-compliant hazardous substance testing, it meets global eco-standards while ensuring stable quality. Precision molding and high-gloss finishing make it ideal for premium applications, significantly reducing defect rates in production. Tailored to meet specific customer requirements, it enhances process efficiency and reinforces product reliability.

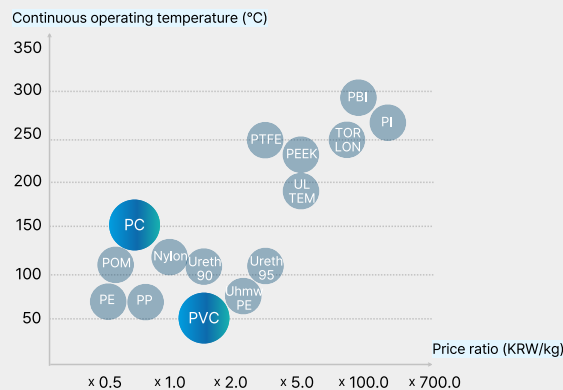


Thickness (W) and Length (H) selectable
(Thickness (W) can be distributed and negotiated in various ways, such as 2mm to 300mm)

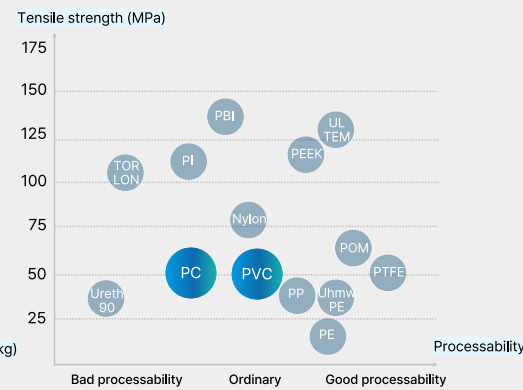
| Comparison by Material

- PC PVC
- Highly processable PC and PVC materials offer flexible solutions for complex, static-free equipment designs. They adapt seamlessly to customization demands, enabling fast and efficient OEM production.
- PC and PVC offer moderate strength and cost-efficiency, making them essential materials for building static-free systems. They provide a practical alternative to high-end compounds without compromising ESD protection or reliability.

Temp. - Price Graph



Strength-Processability Graph



| Hazard Test Certification



→ (Pb), (Cd), (Hg) Testing
→ (Cr VI) Testing
→ PBBs / PBDEs Testing

- Material: Flame-retardant, electrostatic discharge-resistant PC compound
- Purpose: Screening for hazardous substances (heavy metals, brominated flame retardants, phthalate plasticizers)
- Standard: EU RoHS Directive – verification of eco-friendly compliance
- Result: All substances non-detected (N.D.), well below regulatory thresholds
- Conclusion: Fully compliant with all 10 RoHS categories; certified as a regulation-ready, eco-safe material
- Testing Agency: NTEK Testing Technology Co., Ltd.

| Application field



- Electronics and semiconductors: ESD protection panels, covers, housing, Automation facility parts, PCB transportation
- Medical and Bio: Sterile Equipment Exterior, Diagnostic equipment cover, clean panel
- Industrial: Enclosure, Control Panel, Frame
- Electronics Sector Applications: Display covers, sensor housings, Battery module enclosures, casings.

| Features by material

PC: Achieves excellent gloss and strength through high-temperature molding and precise flow control. Ideal when both transparency and impact resistance are required.

PVC: Offers uniform finishing even for complex shapes thanks to superior moldability and chemical resistance. Maintains dimensional accuracy even under low-temperature processing conditions.

| Comparison table by material

Category	Water absorption resistance	Transparency	Impact strength	Thermal resistance	Scratch resistance	Chemical resistance	Adhesion	Banding workability
ESD-Safe PC	○	○	○	◎	◎	○	△	X
ESD-Safe PVC	◎	○	○	△	○	◎	○	◎

◎ Very good, ○ Good, △ Normal

Basic configuration when adopting clean room : **PC · PVC**

Wall upper	other materials (optional)
Wall center	ESD-Safe PC
Wall bottom	ESD-Safe PC or other materials
Ceiling Panel	other materials
Door Assembly	Automatic/sliding/open/folding (optional)