ProViny® by BENVIC

KCC

Conductive PVC compounds range

Conductive PVC for ESD applications

BENVIC continuously improves and extends its product offerings for PVC compounds. In order to cover as many applications as possible, our new KCC range of materials is design to manage electrical conductivity and to protect against electrostatic discharge (ESD) .

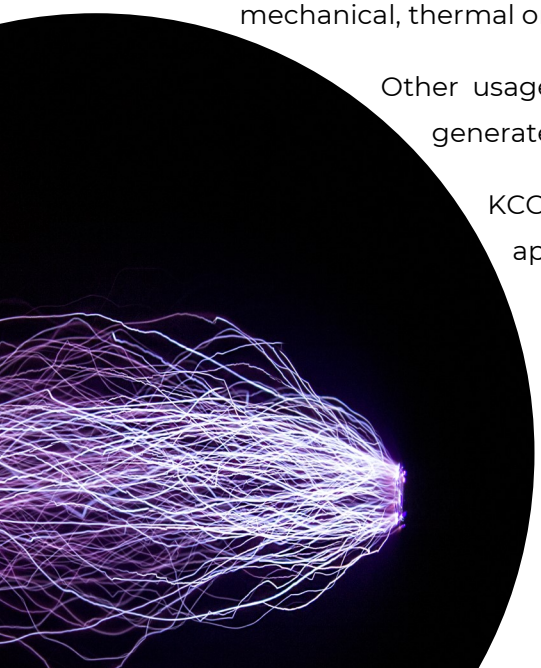
ESD protection is widely used in different settings in order to secure the safety of goods and installations. Various ESD factors need to be considered:

- Protecting electronics components and electronics sub assemblies.
- Avoiding sparking risks and avoiding sudden inflammation linked to combustible fluids or dusty atmospheres .
- Removing contamination from electrically charged particles in critical processes that require absolute cleanliness.
- Securing the stable behavior of electronics and sensors working under ultra low voltage conditions, where static electricity can be a source of disturbance.

Conductive PVC compounds have key material properties that help secure ESD protection:

- Prevention: pre-empting static charge build-up and generation with ESD-Safe materials .
- Elimination: by grounding and creating a path for charges to migrate from conductive objects and/or human bodies to properly ground.

BENVIC has established various processes that successfully manage the dispersion of the conductive filler within the KCC polymer compound. The new KCC materials are able to meet various technical challenges, offering stable conductivity under different stresses such as mechanical, thermal or climatic ones. .



Other usages for KCC included the management of conductive surfaces that generate or integrate electronic functions.

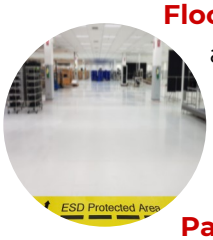
KCC is a key compound for mission critical applications that need the proper protection.

protection

Applications

Cables Electronic applications, such as sensors working under very low voltage, require effective insulation against various disturbances. An addition of ESD compound within the cable design allows for reliability and stability of behaviour. KCC compound is the ideal solution – and offers a wide range of servicing temperature in order to meet specifications for high reliability markets such as automotive or medical. .

Tubing Fluid motion inside tubing can generate an accumulation of static electricity, which can have critical impact such as fire ignition or explosion, or in preventing fluidity. Integrating a conductive drain – via co-extrusion technology – and inside the hose shell is the solution that will help avoid such risks. KCC materials provide excellent co extrusion properties for such an integration.



Flooring Conductive flooring is necessary in order to avoid the accumulation of electrical charges within particular environments. These situations could be linked to flammable environments or might also be electrically sensitive. Examples include hospitals, electronics and computer manufacturing workshops or clean rooms.

Packaging and protective equipment KCC compounds can help protect sensitive equipment such as electronic components and sub assemblies and can help manage dissipation. Typical end products are as bags or adhesive tapes. Protected equipment is necessary within manufacturing environments in order to avoid the generation and propagation of electrical charges. This protection extends to personal equipment such as footwear with conductive soles

ProVinyl KCC range

	Type	Application	Hardness (Shore)	Volumic resistivity (Ohm*cm)	Color	Density (kg/dm3)	Yield stress (MPa)	Minimum strain at break (%)
KCC0010900	Soft	Cable	Sh A 95	5 Max	Black	1.30	12	100
KCC0050900	Soft	Tube	Sh D 56	10 max	Black	1.31	15	100
KCC101/0900	Soft	Tube	Sh A 94	20 Max	Black	1.37	12	100
KCC102/0900	Soft	Tube	Sh A 92	20 Max	Black	1.31	11	100
KCC103/0900	Soft	Tube	Sh D 63	15 Max	Black	1.33	20	100

Technical data sheets, processing recommendations and other supporting data are available upon demand. The information given here above is general commercial information, cannot be considered as a specification can change without prior notice. Benvic also supports customers through continuous adaptation of its products: please contact your nearest sales representative for technical support.

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