

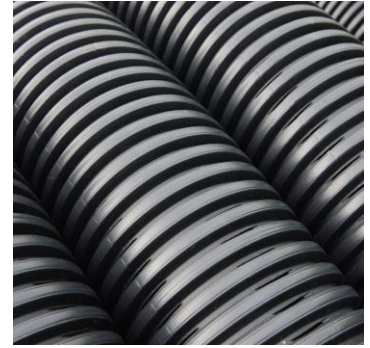
# CABELEC<sup>®</sup> CA4749 CONDUCTIVE COMPOUND

### Product highlights

CABELEC CA4749 electrically conductive compound is made from carbon black and a copolymer of ethylene and vinyl acetate. This product is suitable for extrusion applications where low resistivity and low flexural modulus are required.

### Key applications

CABELEC CA4749 conductive compound is suitable for incorporation into flexible articles such as pipes, tubes, flooring and matting and for applications where it is desirable to mitigate the hazard of electrostatic discharge, such as ordnance and ammunition works, mines and petroleum plants.



### Processing

#### Pre-drying

CABELEC CA4749 conductive compound absorbs very little moisture from the atmosphere under normal storage and usage conditions. Pre-drying of the compound before processing can therefore be avoided in most cases. Nevertheless, for critical applications, if the compound has been stored outside, and/or is used in climates with high relative humidity, it is advisable to pre-dry the material to reduce the moisture content to an acceptable level. Typically, 2 - 3 hours in a dryer at 90°C is sufficient.

#### Extrusion

CABELEC CA4749 conductive compound can be processed on most types of extrusion equipment. It should be processed under low shear conditions. Actual extrusion temperatures should be adapted according to the nature of the equipment and the manufactured article to give optimum extrusion quality.

As general guidance, extrusion temperatures of 150-170°C have been used successfully on extrusion lines. Temperatures above 210°C should be avoided as some degradation of the base polymer may occur. For optimal conductivity, it is strongly suggested that high shear mixing elements be avoided in order to limit any potential porosity. It is advisable to cool the extrudate as soon as possible after it leaves the die.

The information given in this section should be used as a guide only as different equipment could need different conditions.

# CABELEC® CA4749 CONDUCTIVE COMPOUND

TYPICAL PROPERTIES			
PROPERTY	TYPICAL VALUE	UNITS	TEST METHOD
Density @ 23°C	1140	kg/m <sup>3</sup>	ISO 1183
Hardness (15 second value)	51	Shore D	ISO 868
Heat Distortion Temperature @ 0.45 MPa	43	°C	ISO 75
Vicat Softening Point @ 10 N	75	°C	ISO 306
Mold Shrinkage	2.0 – 2.3	%	ASTM D955
Melt Flow Index (190°C/21.6 kg)	4	g/10 min	ISO 1133
Melt Flow Index (190°C/10.0 kg)	0.1	g/10 min	ISO 1133
Volume Resistivity	< 10	Ohm.cm	IEC 61340-2-3
Surface Resistivity	< 200	Ohm/sq	IEC 61340-2-3
Flexural Modulus	220	MPa	ISO 178
Tensile Strength at Break	14	MPa	ISO 527
Tensile Strength at Yield	14	MPa	ISO 527
Elongation at Break	260	%	ISO 527

The data in the table above are typical test values intended as guidance only and are not product specifications. Product specifications are available upon request from your Cabot representative.

## Product form and logistics

- ◆ Product form: pellets
- ◆ Regional availability: global
- ◆ Packaging options: 25 kg bags

For information on product-specific storage conditions, please refer to the applicable Safety Data Sheet (SDS) available from your Cabot representative or at [cabotcorp.com](http://cabotcorp.com).

The CABELEC name is a registered trademark of Cabot Corporation.

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