

CABELEC® CA4676 CONDUCTIVE COMPOUND

Product highlights

CABELEC CA4676 electrically conductive compound is based on conductive carbon black dispersed in a modified low density polyethylene resin. Its electrical and mechanical properties are permanent and are not dependent on atmospheric conditions.

Key applications

CABELEC CA4676 conductive compound has been specially designed for packaging and product handling applications where freedom from the hazard of electrostatic discharge is necessary. Examples of use are in handling of explosive powders, pigments and electronic components and it is particularly suitable for foam applications.

Processing

Pre-drying

CABELEC CA4676 conductive compound absorbs moisture under normal storage conditions and this can result in surface blemishes. It is therefore advisable to dry the compound prior to use. Usually 2 - 4 hours in a drier at 80°C is sufficient time to reduce the moisture content to an acceptable level.

Extrusion

CABELEC CA4676 conductive compound can be processed on conventional 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 a general guide, extrusion temperatures of 120 - 160°C have been used successfully on extrusion lines. Temperatures above 230°C should be avoided. To ensure good electrical and mechanical properties of the material it is nevertheless strongly recommended that high shear mixing elements be avoided.

The information given in this section is provided as guidance only as different equipment could require different processing conditions to achieve the desired results.



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TYPICAL PROPERTIES			
PROPERTY	TYPICAL VALUE	UNITS	TEST METHOD
Density @ 23°C	990	kg/m ³	ISO 1183
Hardness (15 second value)	50	Shore D	ISO 868
Melt Flow Index (190°C/5 kg)	1	g/10 min	ISO 1133
Melt Flow Index (190°C/10 kg)	5	g/10 min	ISO 1133
Melt Flow Index (190°C/21.6 kg)	28	g/10 min	ISO 1133
Surface resistivity on 100 µm film	< 10 ⁴	Ohm/sq	IEC62631-3-2
Volume Resistivity on 4 mm compressed plaque	< 10 ¹	Ohm.cm	IEC62631-3-1
Tensile Strength at Break on 3 mm compressed plaque	13	MPa	ISO 527
Tensile Strength at Yield on 3 mm compressed plaque	11	MPa	ISO 527
Elongation at Break on 3 mm compressed plaque	385	%	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.

The CABELEC name is a registered trademark of Cabot Corporation.

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