CABELEC® CA4676

Low Density Polyethylene

Cabot Corporation

PROSPECTOR®
www.ulprospector.com

Technical Data

Product Description

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.

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.

General

Material Status	• Commercial: Active		
Literature [1]	• Technical Datasheet (English)		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Carbon Black		
Features	• Electrically Conductive	• Low Density	
Uses	• Electrical Parts	• Packaging	
Forms	• Pellets		
Processing Method	• Extrusion		

Physical	Nominal Value	Unit	Test Method
Density (23°C)	0.990	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/10.0 kg	5.0	g/10 min	
190°C/21.6 kg	28	g/10 min	
190°C/5.0 kg	1.0	g/10 min	

Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			ISO 527-2
Yield, 3.00 mm	11.0	MPa	
Break, 3.00 mm	13.0	MPa	
Tensile Strain (Break, 3.00 mm)	390	%	ISO 527-2

Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 15 sec)	50		ISO 868

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity (0.100 mm)	< 1.0E+5	ohms	IEC 62631-3-2
Volume Resistivity (4.00 mm)	< 10	ohms·cm	IEC 62631-3-1

Extrusion	Nominal Value	Unit
Drying Temperature	80	°C
Drying Time	2.0 to 4.0	hr
Cylinder Zone 1 Temp.	120 to 160	°C
Cylinder Zone 3 Temp.	120 to 160	°C
Cylinder Zone 5 Temp.	120 to 160	°C
Melt Temperature	< 230	°C

Notes

[1] These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

[2] Typical properties: these are not to be construed as specifications.

Form No. TDS-70223-en

Document Created: Saturday, June 29, 2024
Added to Prospector: October 2003
Last Updated: 9/7/2022