

CABELEC® CA3896

General Purpose Polystyrene

Cabot Corporation

Message:

CABELEC CA3896 is an electrically conductive compound based on conductive carbon black dispersed in a modified styrenic resin. The electrical properties are permanent and are not dependent on atmospheric conditions.

Applications

CABELEC CA3896 has been specially designed for packaging and electronic product handling where freedom from the hazard of electrostatic discharge is necessary. Examples of use are in handling of explosives, electronic components and pigments.

General Information			
Additive	Carbon black		
Features	Conductivity		
Uses	Packaging		
	Electrical/Electronic Applications		
	Electrical components		
Agency Ratings	EC 1907/2006 (REACH)		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.09	g/cm³	Internal method
Melt Mass-Flow Rate (MFR)			ISO 1133
200°C/10.0 kg	5.0	g/10 min	ISO 1133
200°C/21.6 kg	38	g/10 min	ISO 1133
200°C/5.0 kg	1.0	g/10 min	ISO 1133
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 15 sec)	75		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			ISO 527-2
Yield	30.4	MPa	ISO 527-2
Fracture	24.3	MPa	ISO 527-2
Tensile Strain (Break)	23	%	ISO 527-2
Flexural Modulus	1880	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	16	kJ/m²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	72.0	°C	ISO 75-2/A
Vicat Softening Temperature	101	°C	ISO 306/A

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity (0.400 mm)	2.1E+3	ohms	Internal method
Volume Resistivity	3.0E+2	ohms·cm	Internal method
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.0 mm)	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	60	°C	
Drying Time	2.0 - 4.0	hr	
Rear Temperature	200	°C	
Middle Temperature	200	°C	
Front Temperature	200	°C	
Nozzle Temperature	235	°C	
Mold Temperature	30	°C	
Extrusion	Nominal Value	Unit	
Drying Temperature	60	°C	
Drying Time	2.0 - 4.0	hr	
Cylinder Zone 1 Temp.	170 - 200	°C	
Cylinder Zone 3 Temp.	170 - 200	°C	
Cylinder Zone 5 Temp.	170 - 200	°C	
Melt Temperature	< 230	°C	

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