

CABELEC® CA4701

Polypropylene Copolymer

Cabot Corporation

Message:

CABELEC® 4701 is an electrically conductive compound based on carbon black and a polypropylene copolymer. Its electrical and mechanical properties are permanent and are not dependent on atmospheric conditions.

CABELEC® 4701 has been specially designed for sensitive extrusion applications such as sheets and corrugated sheets for packaging electronics, where freedom from the hazard of electrostatic discharge is required.

General Information			
Additive	Carbon Black		
Features	Electrically Conductive		
Uses	Corrugated Sheet		
	Sheet		
Agency Ratings	EC 1907/2006 (REACH)		
Appearance	Black		
Forms	Pellets		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity ¹	1.21	g/cm ³	Internal Method
Melt Mass-Flow Rate (MFR) ²			ISO 1133
230°C/10.0 kg	10	g/10 min	
230°C/5.0 kg	2.3	g/10 min	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness ³ (Shore D, 15 sec)	68		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress ⁴			ISO 527-2
Yield	27.5	MPa	
Break	19.5	MPa	
Tensile Strain ⁵ (Break)	37	%	ISO 527-2
Flexural Modulus ⁶	1110	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength ⁷ (23°C)	72	kJ/m ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁸ (1.8 MPa, Unannealed)	50.0	°C	ISO 75-2/A
Vicat Softening Temperature ⁹	155	°C	ISO 306/A
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity			Internal Method
-- ¹⁰	9.8E+2	ohms	

0.400 mm ¹¹	7.7E+2	ohms	
Volume Resistivity ¹²	70	ohms·cm	Internal Method
Extrusion	Nominal Value	Unit	
Drying Temperature	60.0	°C	
Drying Time	2.0 to 4.0	hr	
Melt Temperature	190 to 220	°C	
NOTE			
1.	CTM E023		
2.	CTM E005		
3.	CTM E030		
4.	CTM E041		
5.	CTM E041		
6.	CTM E040A		
7.	CTM E044A		
8.	CTM E038		
9.	CTM E039		
10.	CTM E042E		
11.	CTM E042D		
12.	CTM E043B		

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