CABELEC® CA3842

Polypropylene Copolymer

Cabot Corporation

Message:

CABELEC® 3842 is an electrically conductive compound based on carbon black and a polypropylene copolymer. It has very good mechanical properties and can be easily processed on conventional moulding equipment.
CABELEC® 3842 is recommended for the manufacture of containers and specialized mouldings. Suggested areas of applications are ordnance and ammunition works, hospitals, mines, petroleum plants, electronics and other environments where freedom from the hazard of electrostatic discharge is an important consideration.

General Information			
Additive	Carbon Black		
Features	Copolymer Electrically Conductive Good Processability		
Uses	Containers Electrical/Electronic Applications Medical/Healthcare Applications Mining Applications		
Agency Ratings	EC 1907/2006 (REACH)		
Appearance	Black		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity [1]	1.09	g/cm³	Internal Method
Melt Mass-Flow Rate (MFR) [2]			ISO 1133
230°C/10.0 kg	22	g/10 min	
230°C/2.16 kg	0.40	g/10 min	
230°C/5.0 kg	5.0	g/10 min	
Molding Shrinkage - Flow [3]	0.80 to 1.0	%	ASTM D955
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness [4] (Shore D, 15 sec)	66		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [5]			ISO 527-2
Yield	21.0	MPa	
Break	15.6	MPa	
Tensile Strain [6] (Break)	20	%	ISO 527-2
Flexural Modulus [7]	1500	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**

Notched Izod Impact Strength [8] (23°C)	31	kJ/m²	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature [9] (1.8 MPa, Unannealed)	46.0	°C	ISO 75-2/A
Vicat Softening Temperature [10]	148	°C	ISO 306/A
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity [11]	2.0E+2	ohms	Internal Method
Volume Resistivity [12]	20	ohms·cm	Internal Method
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (3.00 mm)	HB		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	95.0	°C	
Drying Time	2.0 to 4.0	hr	
Rear Temperature	200	°C	
Middle Temperature	200	°C	
Front Temperature	210	°C	
Nozzle Temperature	220	°C	
Processing (Melt) Temp	200 to 230	°C	
Mold Temperature	30.0	°C	
Injection Pressure	1.50	MPa	
Screw L/D Ratio	18.0:1.0		
NOTE			
1.	CTM E023		
2.	CTM E005		
3.	CTM E047		
4.	CTM E030		
5.	CTM E041		
6.	CTM E041		
7.	CTM E040A		
8.	CTM E044A		
9.	CTM E038		
10.	CTM E039		
11.	CTM E042E		
12.	CTM E043B		

Recommended distributors for this material

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