# CABELEC® CA6141

## Polycarbonate

#### **Cabot Corporation**

#### Message:

CABELEC® 6141 is an electrically conductive compound based on conductive carbon black dispersed in a modified polycarbonate. CABELEC® 6141 has been specially formulated for injection moulding applications. It has been developed to give a balanced property profile with permanent electrical conductivity.

CABELEC® 6141 is recommended for packaging and electronic 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.

General Information				
Additive	Carbon Black			
Features	Electrically Conductive			
Uses	Electrical/Electronic Applications			
	Packaging			
Agency Ratings	EC 1907/2006 (REACH)			
Appearance	Black			
Forms	Pellets			
Processing Method	Injection Molding			
Physical	Nominal Value	Unit	Test Method	
Density <sup>1</sup>	1.20	g/cm³	Internal Method	
Melt Mass-Flow Rate (MFR) <sup>2</sup>			ISO 1133	
260°C/10.0 kg	12	g/10 min		
260°C/2.16 kg	0.60	g/10 min		
260°C/5.0 kg	4.0	g/10 min		
Molding Shrinkage - Flow <sup>3</sup>	0.70 to 0.90	%	ASTM D955	
Hardness	Nominal Value	Unit	Test Method	
Durometer Hardness <sup>4</sup> (Shore D, 15 sec)	80		ASTM D2240	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Stress <sup>5</sup>			ISO 527-2	
Yield	54.0	MPa		
Break	47.0	MPa		
Tensile Strain <sup>6</sup> (Break)	24	%	ISO 527-2	
Flexural Modulus <sup>7</sup>	2170	MPa	ISO 178	
Impact	Nominal Value	Unit	Test Method	
Notched Izod Impact Strength <sup>8</sup> (23°C)	22	kJ/m²	ISO 180	
Thermal	Nominal Value	Unit	Test Method	
Heat Deflection Temperature <sup>9</sup> (1.8 MPa, Unannealed)	121	°C	ISO 75-2/A	
Vicat Softening Temperature <sup>10</sup>	149	°C	ISO 306/A	
Electrical	Nominal Value	Unit	Test Method	

Surface Resistivity <sup>11</sup>	1.0E+5	ohms	Internal Method
Volume Resistivity <sup>12</sup>	2.0E+2	ohms·cm	Internal Method
Injection	Nominal Value	Unit	
Drying Temperature	100	°C	
Drying Time	2.0 to 4.0	hr	
Middle Temperature	270	°C	
Nozzle Temperature	290	°C	
Mold Temperature	80.0	°C	
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		

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