# CABELEC® CA3817

### Linear Low Density Polyethylene

#### **Cabot Corporation**

General Information

#### Message:

CABELEC® 3817 is an electrically conductive compound based on conductive carbon black and a modified linear low density polyethylene resin. Its electrical and mechanical properties are permanent and are not dependent on atmospheric conditions.

CABELEC 3817 is recommended 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.

Additive	Carbon Black		
Features	Electrically Conductive		
Uses	Electrical Parts		
	Packaging		
Agency Ratings	EC 1907/2006 (REACH)		
Appearance	Black		
Forms	Pellets		
Processing Method	Blown Film		
	Film Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity <sup>1</sup>	1.04	g/cm³	Internal Method
Melt Mass-Flow Rate (MFR) <sup>2</sup>			ISO 1133
190°C/10.0 kg	6.0	g/10 min	
190°C/5.0 kg	2.0	g/10 min	
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus <sup>3</sup> (Compression Molded)	284	MPa	ISO 178
Films	Nominal Value	Unit	Test Method
Tensile Stress <sup>4</sup>			ISO 527-3/500
MD : Yield, 100 μm	11.8	MPa	
TD : Yield, 100 μm	11.5	MPa	
MD : 100 μm	25.1	MPa	
TD : 100 µm	22.4	MPa	
Tensile Elongation <sup>5</sup>			ISO 527-3/500
MD : Break, 100 μm	1100	%	
TD : Break, 100 µm	940	%	
Trouser Tear Resistance			ASTM D1938
MD : 50 μm	106	N/mm	
TD : 50 μm	104	N/mm	
Electrical	Nominal Value	Unit	Test Method

Surface Resistivity <sup>6</sup> (0.100 mm)	1.0E+4	ohms	Internal Method
Extrusion	Nominal Value	Unit	
Drying Temperature	80.0	°C	
Drying Time	2.0 to 4.0	hr	
Cylinder Zone 1 Temp.	200 to 230	°C	
Cylinder Zone 2 Temp.	200 to 230	°C	
Cylinder Zone 3 Temp.	200 to 230	°C	
Cylinder Zone 4 Temp.	200 to 230	°C	
Cylinder Zone 5 Temp.	200 to 230	°C	
Die Temperature	200 to 230	°C	
NOTE			
1.	CTM E023		
2.	CTM E005		
3.	CTM E040A		
4.	CTM E041		
5.	CTM E041		
6.	CTM E042B		

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#### Recommended distributors for this material

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