CABELEC® CA6114

High Density Polyethylene

Cabot Corporation

Message:

CABELEC® 6114 is an electrically conductive compound based on conductive carbon black dispersed in a modified high density polyethylene resin. Its electrical and mechanical properties are permanent and are not dependent on atmospheric conditions.
APPLICATIONS:
CABELEC® 6114 is used for injection moulding applications. It is recommended for product handling applications where freedom from the hazard of electrostatic discharge is necessary. Examples are parts for use in automotive fuel systems or where there is handling of explosive powders and liquids, pigments or electronic components.

General Information			
Additive	Carbon Black		
Features	Electrically Insulating		
Uses	Automotive Applications Electrical/Electronic Applications		
Agency Ratings	EC 1907/2006 (REACH)		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.07	g/cm³	Internal Method
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/10.0 kg	4.5	g/10 min	
190°C/21.6 kg	16	g/10 min	
190°C/5.0 kg	1.0	g/10 min	
Molding Shrinkage - Flow	2.5 to 3.5	%	ASTM D955
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D, 15 sec)	61		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	649	MPa	ISO 527-2
Tensile Stress			ISO 527-2
Yield	22.0	MPa	
Break	18.0	MPa	
Tensile Strain			ISO 527-2
Yield	19	%	
Break	150	%	
Flexural Modulus	744	MPa	ISO 178
Flexural Stress	23.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength (23°C)	20	kJ/m²	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**

Heat Deflection Temperature			
0.45 MPa, Unannealed	65.0	°C	ISO 75-2/B
1.8 MPa, Unannealed	40.0	°C	ISO 75-2/A
Vicat Softening Temperature	119	°C	ISO 306/A
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.6E+2	ohms	Internal Method
Volume Resistivity	20	ohms·cm	Internal Method
Injection	**Nominal Value**	**Unit**	
Drying Temperature	80.0	°C	
Drying Time	2.0 to 4.0	hr	
Rear Temperature	190	°C	
Middle Temperature	190	°C	
Front Temperature	190	°C	
Nozzle Temperature	215	°C	
Mold Temperature	35.0	°C	

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

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