

CONDUCTIVE POLYCARBONATE COMPOUND
FOR INJECTION MOULDING



CABELEC® 6141



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.

APPLICATIONS

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.

PROCESSING

Pre-drying (moisture)

CABELEC® 6141 absorbs moisture under normal storage conditions and this can result in surface blemishes on mouldings. It is therefore advisable to dry the compound prior to use. Usually 2 - 4 hours in a drier at 100 °C is sufficient time to reduce the moisture content to an acceptable level.

Injection Moulding

CABELEC® 6141 can be processed on most types of injection moulding machine. Low shear conditions are nevertheless strongly recommended in order to achieve good electrical conductivity. The precise processing conditions depend on the machinery, output rate and complexity of the injected part under consideration. As a general guide, the following injection moulding temperatures have been used successfully:
Barrel/nozzle: 270/290°C -
Mould: 80°C
Mould design: generous gates are helpful for the moulding of filled CABELEC as for other highly filled thermoplastics.
The information given in this section should be used as a guide only as different equipment could need different conditions.



Cabot Corporation

www.cabot-corp.com/plastics

CABELEC® 6141

CONDUCTIVE POLYCARBONATE
COMPOUND FOR INJECTION
MOULDING



PHYSICAL PROPERTIES

Typical values for CABELEC® 6141 are presented in the following table. Some of them are characteristic of injection moulded pieces.

PROPERTY	CABOT TEST METHOD	UNIT	VALUE
Density @ 23°C	CTM E023	kg/m ³	1230
Hardness (15 second value)	CTM E030 (ASTM D2240)	Shore D	81
Heat Distortion Temperature @ 1.80 MPa	CTM E038 (ISO 75)	° C	121
Vicat Softening Point @ 10 N	CTM E039 (ISO 306)	° C	148
Mould Shrinkage	CTM E047 (ASTM D955)	%	1.7 - 2.0
Melt Flow Index (260°C/5 kg)	CTM E005 (ISO 1133)	g/10 min	8
Melt Flow Index (260°C/10 kg)	CTM E005 (ISO 1133)	g/10 min	22
Volume Resistivity	CTM E043B	Ohm.cm	500
Surface Resistivity	CTM E042E	Ohm/sq	10 ⁵
Flexural Modulus	CTM E040A (ISO 178)	MPa	2050
Tensile Strength at Break	CTM E041 (ISO 527)	MPa	44
Tensile Strength at Yield	CTM E041 (ISO 527)	MPa	50
Elongation at Break	CTM E041 (ISO 527)	%	40
Notched Izod Impact @ 23°C	CTM E044A (ISO 180)	kJ/m ²	20

Tests are performed according to Cabot Test Methods (CTM) based on international Standards.

Quoted test results should not be used for specification purposes but are typical test values intended for guidance only.

PACKAGING

CABELEC compounds are supplied in regular pellet form packed in 25 kg bags and should be stored in a dry place. Larger quantities can be packaged to suit customer's specific requirements. Recommended storage life: up to 6 months provided it is stored as directed.

This information is provided as a convenience and for informational purposes only. No guarantee or warranty as to this information, or any product to which it relates, is given or implied. This information may contain inaccuracies, errors or omissions and CABOT DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AS TO (i) SUCH INFORMATION, (ii) ANY PRODUCT OR (iii) INTELLECTUAL PROPERTY INFRINGEMENT. In no event is Cabot responsible for, and Cabot does not accept and hereby disclaims liability for, any damages whatsoever in connection with the use of or reliance on this information or any product to which it relates.

HEAD OFFICE
Cabot SCCC
Interleuvenlaan 15 I
B - 3001 Leuven - Belgium
Tel : +32 16 39 24 00
Fax : +32 16 39 24 44
SALES OFFICES
Cabot Plastics Ltd
Gate Street
Dukinfield SK16 4RU - England
Tel: +44 161 934 4500
Fax: +44 161 934 4501

Cabot Plastics Belgium S.A.
Rue Prevochamps 78
B - 4860 Pepinster - Belgium
Tel: +32 87 39 27 11
Fax: +32 87 46 98 69
Cabot Latin America Division
Rua do Paraíso, 148 – 5th floor
Paraíso CEP 04103-000 São Paulo SP -
Brazil
Tel: +55 11 21 44 64 00
Fax: +55 11 32 53 00 51
Tel.: (0800) 195 959 (Customer Service)

Cabot Plastics Deutschland
Tel: (0800) 182 40 86
Fax: (0800) 182 40 87
c/o Cabot Plastics Belgium S.A.
(see address above)

Cabot Italiana S.p.A
Zona Industriale, 4
I - 38055 Grigno (TN) - Italia
Tel: +39 0461 775 211
Fax: +39 0461 765 146

Cabot Plastics Hong Kong Ltd
18 Dai Kwai Street
Tai Po Industrial Estate / NT
Hong Kong SAR - PRC
Tel: +852 2666 2666
Fax: +852 2666 0807
Cabot (China) Limited
558 Shuangbai Road
Shanghai, China 201108
Tel: +86 21 5175 8800
Fax: +86 21 6434 5532