

CABELEC® 0887



CABELEC® 0887 is an electrically conductive compound based on carbon black and a copolymer of ethylene and vinyl acetate. It has been specially developed to give very low volume resistivity and good flexibility.

APPLICATIONS

CABELEC® 0887 has been designed for the production of flexible articles such as pipes, tubes, flooring and matting, for use in application where freedom from electrostatic hazard is an important consideration. Suggested areas of applications are ordnance and ammunition works, mines, petroleum plants and other environments, for example, powder handling.

PROCESSING

Pre-drying (moisture)

CABELEC® 0887 absorbs moisture under normal storage conditions and this can result in porosity in the extruded section. It is therefore advisable to dry the compound prior to use. Usually 2 - 4 hours in a drier at 75°C is sufficient time to reduce the moisture content to an acceptable level.

Extrusion

CABELEC® 0887 can be processed on conventional extrusion equipment. It should be processed under low shear conditions. Actual extrusion temperatures should be adapted according to the nature of the equipment and the manufactured article to give optimum extrusion quality. As a general guide, extrusion temperatures of 150-170°C have been used successfully on extrusion lines. To ensure good electrical and mechanical properties of the material it is nevertheless strongly recommended that high shear mixing elements be avoided. As an aid to the elimination of porosity, it is advisable to cool the extrudate as soon as possible after it leaves the die. During extrusion, processing temperatures in excess of 210°C should be avoided as some degradation of the base polymer may occur. The information given in this section should be used as a guide only as different equipment could need different conditions.



PHYSICAL PROPERTIES

Typical values for CABELEC® 0887 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	1160
Hardness (15 second value)	CTM E030 (ASTM D2240)	Shore D	59
Heat Distortion Temperature @ 0.46 MPa	CTM E038 (ISO 75)	° C	49
Vicat Softening Point @ 10 N	CTM E039 (ISO 306)	° C	73
Mould Shrinkage	CTM E047 (ASTM D955)	%	1.0 - 1.3
Melt Flow Index (190°C/21.6 kg)	CTM E005 (ISO 1133)	g/10 min	3
Melt Flow Index (190°C/10 kg)	CTM E005 (ISO 1133)	g/10 min	0.3
Volume Resistivity	CTM E043B	Ohm.cm	5
Surface Resistivity	CTM E042E	Ohm/sq	100
Flexural Modulus	CTM E040A (ISO 178)	MPa	220
Tensile Strength at Break	CTM E041 (ISO 527)	MPa	13
Tensile Strength at Yield	CTM E041 (ISO 527)	MPa	9
Elongation at Break	CTM E041 (ISO 527)	%	250

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.

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