

**Polyolefins****LE6006****Low Loss LDPE Compound for Coaxial Cables****Description**

LE6006 is a low density compound. **LE6006** contains a special type of antioxidant, which does not adversely affect the electrical properties.

Applications

LE6006 is intended for the insulation of telephone wires and coaxial communication cables.

Specifications

LE6006 meets the applicable requirements as below when processed using sound extrusion practice and testing procedure:

- ASTM D 1248 Type I, Class A, Category 5, Grade E4, E5
- BS 6234: Type 03
- DIN VDE 0207, 2Y13
- ISO 1872-PE, KHN, 18-D003
- US MIL SPEC LP 390 C, Type I, Class L, Grade 1 and 2, Category 5
- US MIL SPEC LP 390 C, Type II, Class L, Grade 1 and 3, Category 5

Physical Properties

		Typical Value*	Unit	Test Method
Density		918	kg/m ³	MFR-cutoff/ISO 1183-D
Melt Flow Rate	(190°C, 2.16 kg)	0.3	g/10 min	ISO 1133
Tensile Strength	(50 mm/min)	15	MPa	ISO 527
Elongation	(50 mm/min)	600	%	ISO 527
ESCR (50°C, 100% Igepal), F ₂₀		>96	h	IEC 60811-4-1/B
Durometer Hardness	(1 sec)	50	Shore D	ISO 868
Brittleness Temperature		<- 76	°C	ASTM D 746

* Data should not be used for specification work

Electrical Properties

		Typical Value*	Unit	Test Method
Dielectric Constant	(1 MHz)	2.29	-	IEC 60250
Dissipation Factor	(1 MHz)	0.00008	-	IEC 60250
DC Volume Resistivity		10 ¹⁶	Ω cm	IEC 60093
Dielectric Strength		22	kV/mm	IEC 60243

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Processing Guidelines

LE6006 provides excellent surface finish and high output rates over a broad range of conditions. For normal extrusion equipments and applications we suggest a melt temperature and a conductor preheating according to the table below:

Conductor preheating temperature:	80 - 100°C
Melt temperature:	200 – 230°C

For extrusion of solid coaxial cables it is recommended to use gradient cooling to minimise the risk of contraction-void formation. Specific recommendations for processing conditions can be determined only when the application and type of equipment are known. Please contact your local Borealis representative for such particulars.

Delivery

Form:	Granules
Package:	25 kg bags – 1375 kg loads
	1000 kg (nominal) Octabins
	Bulk

Safety

LE6006 is not classified as a dangerous preparation.

The product is supplied in form of free-flowing granules of approximately 3 - 4 mm sizes and can be readily handled with commercially available equipment. Handling and transport of the product may generate some dust and fines, which constitute a potential hazard for dust explosion. All metal parts in the system should therefore be properly grounded. Properly designed equipment and good housekeeping will reduce the risk. Check and follow local codes and regulations!

Inhalation of any type of dust should be avoided as it may cause irritation of the respiratory system.

The product is intended for industrial use only. A Safety Data Sheet is available on request. Please contact your Borealis representative for more details on various aspects of safety, recovery and disposal of the product.



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