



Black LLPE Jacketing Compound

- **Description**

ZARPLS™ LLB8706 is a black linear low density compound for jacketing of power and communication cables. Characterized by:

- * High melting temperature (approximately 120°C)
- * Low coefficient of friction
- * Good abrasion resistance
- * Good petroleum-jelly resistance
- * Low water permeability
- * Very wide processing window

ZARPLS™ LLB8706 contains 2.5% well-dispersed carbon black in order to ensure excellent weathering resistance

- **Applications**

ZARPLS™ LLB8706 is intended for jacketing of power and communication cables. The abrasion resistance combined with low coefficient of friction makes it ideally suitable for jacketing of fibre optic cables.

- **Specifications**

ZARPLS™ LLB8706 meets the applicable requirements as below when processed using sound extrusion practice and testing procedure:

- ASTM D 1248 Type I, Class C, Category 4, Grade J3, E4, E5, W2-4
- BS 6234: Type 03C, TS2
- BT M 132
- EN 50290-2-24
- HD 620 S1, Part 1, table 4B, DMP 12, 14, 17
- IEC 60502 ST3
- IEC 60708
- IEC 60840, ST3
- ISO 1872-PE, KCHL, 18-D006
- NF C 32-060
- REA Bulletin 345-21
- US MIL SPEC LP 390 C, Type III, Class L, Grade 2, 3 and 4, Category 4

**Black LLPE Jacketing Compound**

- Physical Properties**

Data should not be used for specification work

Property	Typical Value	Test Method
Density (Base Resin)	0.92 gr/cm ³	ISO 1183
Density (Compound)	0.93 gr/cm ³	ISO 1183
Melt Flow rate (190°C , 2.16 kg)	0.7 gr/10 min	ISO 1133
Elongation at Break (250 mm/min)	500 %	IEC 60811-401
Tensile Strength (250 mm/min)	17 N/mm ²	IEC 60811-401
Hardness Shore D (1s)	49	ISO 868
Brittleness Temperature	< -76 °C	ASTM D 746

- Electrical Properties**

Data should not be used for specification work

Property	Typical Value	Test Method
Dielectric Constant (1MHz)	2.5	IEC 60250
Dissipation Factor (1MHz)	0.0004	IEC 60250
DC Volume Resistivity	10 ¹⁶ Ohm.com	IEC 60093
Dielectric Strength	20 kV/mm	IEC 60243

- Processing Guidelines**

ZARPLSTM LLB8706 provides excellent surface finish and allows a broad processing window. Standard PE-screw gives satisfactory results but also low compression screws can be used successfully. We suggest a temperature profile as below:

Feed section: 170°C

Metering section: 200°C

Head and die 210° C

If preheating and/or drying is used, the maximum temperature should be 90°C.

- Packaging**

Bulk

Octabin

Bags