

# ALCUDIA® LDPE CP-121

Low Density Polyethylene  
REPSOL

Message:

ALCUDIA® CP-121 is high molecular weight, low density polyethylene compound designed for telephone and coaxial cables. This product provides a superior performance at high-speed extrusion together with a smooth surface finish of the cable. This grade contains a special stabilization system for protection against thermal and shear degradation during processing and it also contains a metal deactivator to ensure long-term ageing properties.

**TYPICAL APPLICATIONS**

Solid insulation for telephone cables It is recommended a temperature profile between 150 - 220°C. Optimal processing conditions must be tuned for each production line, recommending to use filters and a break plate to increase the pressure in the cylinder and consequently improve the cable quality, homogenization and dispersion of pigments in the case of colored cable

ALCUDIA® CP-121 meets the following specifications: ISO 1872 PE KHN 23D003; ASTM D 1248 I, A5, Grade E5; NF C 32-060 ISM1; VDE 0207 Teil 2 2411.

General Information			
Additive	Metal deactivator		
Features	High molecular weight		
	Crosslinkable		
	Excellent appearance		
Uses	Cable sheath		
Agency Ratings	ASTM D 1248, I, Class A, Cat. 5, Grade E5		
	ISO 1872 PE KHN 23D003		
	NFC 32-060 ISM1		
	VDE 0207 Teil 2 2411		
Appearance	Natural color		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	0.921	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.35	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Break)	16.0	MPa	ISO 527-2
Tensile Strain (Break)	600	%	ISO 527-2
Aging	Nominal Value	Unit	Test Method
Retention of Mechanical Properties <sup>1</sup> (100°C)	> 70	%	ISO 527-2
Thermoset <sup>2</sup> (200°C)		%	IEC 60811-2-1
Oxidation Induction Time (200°C)	> 30	min	EN 728
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature <sup>3</sup>	-76.0	°C	ASTM D746
Vicat Softening Temperature	96.0	°C	ISO 306/A

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (23°C)	> 1.0E+16	ohms·cm	ASTM D257
Dielectric Constant (1 MHz)	2.30		ASTM D150
Dissipation Factor (1 MHz)	3.0E-4		ASTM D150

Extrusion	Nominal Value	Unit
Melt Temperature	150 - 220	°C

NOTE	
1.	10 days
2.	20 N/cm <sup>2</sup> , 1.9% Peroxide + 0.2% AO
3.	0 Failures

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#### Recommended distributors for this material

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