

ALCUDIA® LDPE CN-105

Low Density Polyethylene
REPSOL

Message:

ALCUDIA® CN-105 is based on a special low density polyethylene, which provides excellent properties to the final product. It is characterized by its excellent environmental stress cracking resistance (ESCR), good processability and low temperature performance. This grade contains well dispersed carbon black in order to ensure good outdoor weather resistance and antioxidant to improve the thermal ageing properties.

TYPICAL APPLICATIONS

Black jacketing of telecommunication cables.

ALCUDIA® CN-105 processing conditions depend mainly on the type of extrusion equipment but as a guiding idea, it is recommended a temperature profile between 150 - 210°C.

ALCUDIA® CN-105 meets the following specifications: ISO 1872 PE KHC 23D003; ASTM D 1248 I,C5 Grade J3; NF C 32-060 GE1; VDE 0207 Teil3 2YM2.

General Information			
Additive	Antioxidation		
	Carbon black (3%)		
Features	High ESCR (Stress Cracking Resistance)		
	Antioxidation		
	Workability, good		
	Good weather resistance		
Uses	Cable sheath		
	Wire and cable applications		
Agency Ratings	ASTM D 1248, I, Class C, Cat. 5, Grade J3		
	ISO 1872 PE KHC 23D003		
	NF C 32-060 GE1		
	VDE 0207 Teil3 2YM2		
Appearance	Black		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	0.934	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.25	g/10 min	ISO 1133
Environmental Stress-Cracking Resistance (F0)	> 1000	hr	ASTM D1693
Carbon Black Content	2.5	%	ASTM D1603
Retention of Mechanical Properties ¹ (110°C)	> 75	%	ISO 527-2
Oxidation Induction Time (200°C)	> 30	min	EN 728

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	49		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Break)	14.0	MPa	ISO 527-2
Tensile Strain (Break)	600	%	ISO 527-2
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature ²	-76.0	°C	ASTM D746
Vicat Softening Temperature	94.0	°C	ISO 306/A
Electrical	Nominal Value		Test Method
Dielectric Constant (1 MHz)	2.60		ASTM D150
Dissipation Factor (1 MHz)	5.0E-3		ASTM D150
NOTE			
1.	10 days		
2.	0 Failures		

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