

Alcudia® Low density polyethylene

Chemicals

Technical data sheet



LDPE ALCUDIA® PE-004

DESCRIPTION

ALCUDIA® PE-004 is a natural and crosslinkable low density polyethylene specifically designed to be cross-linked by organic peroxide. The outstanding features of this grade are cleanliness, excellent processability, high efficiency of crosslinking, good mechanical properties and smooth surface finish. This grade does not contain antioxidant, therefore, it is necessary to add in proper balance of a non-staining antioxidant and peroxide to ensure thermal stability and optimum cure level.

ALCUDIA® PE-004 is normally supplied in octabins, tankers and van-boxes.

TYPICAL APPLICATIONS

Medium voltage cable insulation.

Processing conditions of ALCUDIA® PE-004 are dependent on formulation and technique employed but it is noteworthy that this grade is suitable to use in a temperature range of 120°C - 130°C.

ALCUDIA® PE-004 meets the following standards: ISO 1872 PE KHN 18D022; ASTM D 1248 I, A3 Grade E5.

PROPERTIES	VALUE	UNIT	TEST METHOD
Generales			
Melt Flow rate (190°C/2,16 kg)	2.4	g/10 min	ISO 1133
Density at 23°C	920	kg/m ³	ISO 1183
Mechanical			
Tensile Strain at Break	14	MPa	ISO 527-2
Elongation at break	500	%	ISO 527-2
Retention of mechanical properties after ageing 100°C, 10 days (*)	≥75	%	ISO 527-2
Hot-Set (200°C, 20 N/cm ²) (*)	<60	%	IEC 811-2-1
Thermal			
Vicat Softening Temperature (10 N)	91	°C	ISO 306
Electrical			
Dielectric Constant (1 MHz)	2.3	-	ASTM D 1531
Dielectric Dissipation Factor (1 MHz)	3E-4	-	ASTM D 1531
Volume Resistivity DC at 23°C	>1E16	ohm·cm	ASTM D 257
Dielectric Strength (50 Hz)	>22	kV/mm	EN – 60243-1

(*) 1.9% Peróxido + 0.2 % AO

STORAGE

ALCUDIA® PE-004 should be stored in a dry atmosphere, on a paved, drained and not flooded area, at temperatures under 50°C and protected from UV radiation. Storage under inappropriate conditions could initiate degradation processes which may have a negative influence on the processability and the properties of the transformed product.

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This information is offered in good faith and meant only as a guide. The transformer or user will be, in each case, responsible for the processing conditions and the final use of the product. Freedom under patents, copyright and registered designs cannot be assumed.

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