

LDPE ALCUDIA[®] PE-003

DESCRIPTION

ALCUDIA[®] PE-003 is a low density polyethylene developed for cross-linking by direct addition of organic peroxide or silanes. This grade has the following features: excellent processability, high cross-linking rate and smooth surface finish. This product does not contain additives, so antioxidant must be added. The nature and content of antioxidant ought to be treated carefully because of which should present minimum interference with the cross-linking reaction and ensure thermal stability.

TYPICAL APPLICATIONS

Insulation of low voltage cables.

The ALCUDIA[®] PE-003 processing conditions depend on the type of cable to be manufactured, kind of equipment used and cross-linking system. The use of filters and a break plate is recommended in order to increase pressure in the cylinder and to avoid contaminations that could decrease the final quality of the cable.

ALCUDIA[®] PE-003 meets the following standards: ISO 1872 PE KN 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
Thermal			
Vicat Softening Temperature (10 N)	92	°C	ISO 306
Electrical			
Dielectric Constant (1 MHz)	2.3	-	ASTM D 1531
Dielectric Dissipation Factor (1 MHz)	3E-4	-	ASTM D 1531527
Volume Resistivity DC at 23°C	>1E16	ohm-cm	ASTM D 257
Dielectric Strength (50 Hz)	>22	kV/mm	EN – 60243-1

STORAGE

ALCUDIA[®] PE-003 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.

November 2013