

ALCUDIA® Low density polyethylene



Chemicals

CN-105

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.

PROPERTIES	VALUE	UNIT	TEST METHOD
Generales			
Melt Flow rate (190°C/2,16 kg)	0.25	g/10 min	ISO 1133
Density at 23°C	934	kg/m ³	ISO 1183
Oxidation Induction Time (200°C)	>30	min	UNE EN 728
Environmental Stress Cracking Resistance (F0)	>1000	h	ASTM D 1693
Carbon Black Content	2.5	%	ASTM D 1603
Mechanical			
Tensile Strain at Break	14	MPa	ISO 527-2
Elongation at break	600	%	ISO 527-2
Retention of mechanical properties after ageing 110°C/10 days	≥75	%	ISO 527
Shore Hardness D	49	-	ISO 868
Thermal			
Brittleness temperature (-76°C)	failures	0	ASTM D 746
Vicat Softening Temperature (10 N)	94	°C	ISO 306
Electrical			
Dielectric Constant (1 MHz)	2.6	-	ASTM D 1531
Dielectric Dissipation Factor (1 MHz)	5E-3	-	ASTM D 527

STORAGE

ALCUDIA® CN-105 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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