

Alcudia® High density polyethylene

Chemicals

Technical data sheet



HDPE ALCUDIA® C-220-N

DESCRIPTION

ALCUDIA® C-220-N is a high molecular weight, high density polyethylene compound designed to provide very low shrinkage during processing. It contains well dispersed carbon black and antioxidant in order to ensure UV radiation resistance and thermal ageing respectively. The outstanding feature of this product is its mechanical properties, excellent outdoor weather resistance and very good processability

TYPICAL APPLICATIONS

Black jacketing of power and telecommunication cables.

It is recommended a melt temperature between 190 – 220°C and the use of a screw L/D: 20 – 28.

ALCUDIA® C-220-N meets the following specifications: ISO 1872 PE KHC 40/45 D003/006; ASTM D 1248 III, C4, Grade J5; VDE 0207 Teil3 2YM1.

PROPERTIES	VALUE	UNIT	TEST METHOD
Generales			
Melt Flow rate (190°C/2,16 kg)	0.60	g/10 min	ISO 1133
Density at 23°C	952	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	27	MPa	ISO 527-2
Elongation at break	800	%	ISO 527-2
Retention of mechanical properties after ageing 110°C/10 days	≥75	%	ISO 527-2
Shore Hardness D	55	-	ISO 868
Thermal			
Brittleness temperature (-76°C)	0	failures	ASTM D 746
Vicat Softening Temperature (10 N)	125	°C	ISO 306
Electrical			
Dielectric Constant (1 MHz)	2.7	-	ASTM D 1531
Dielectric Dissipation Factor (1 MHz)	5E-3	-	ASTM D 1531

STORAGE

ALCUDIA® C-220-N 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

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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