TECHNICAL DATA SHEET

Repsol ALCUDIA CP121

REPSOL ALCUDIA CP121 is high molecular weight, low density polyethylene compound designed for telephone and coaxial cables. This product provides a superior performance at high-speed extrusion together with a smooth surface finish of the cable. This grade contains a special stabilization system for protection against thermal and shear degradation during processing and it also contains a metal deactivator to ensure long-term ageing properties.

Applications:

- Solid insulation for telephone cables.

It is recommended a temperature profile between 150 - 220ºC. Optimal processing conditions must be tuned for each production line, recommending to use filters and a break plate to increase the pressure in the cylinder and consequently improve the cable quality, homogenization and dispersion of pigments in the case of colored cable
REPSOL ALCUDIA CP121 meets the following specifications: ISO 1872 PE KHN 23D003; ASTM D 1248 I, A5, Grade E5; NF C 32-060 ISM1; VDE 0207 Teil 2 24I1.

Properties:

Properties	Value	Unit	Test Method
GENERAL			
Melt flow rate (190ºC, 2,16kg)	0.35	g/10 min	ISO 1133
Density at 23 ºC	921	kg/m3	ISO 1183
Oxidation Induction Time (200ºC)	>30	min	UNE EN 728
MECHANICAL			
Tensile Stength at Break	16	MPa	ISO 527-2
Elongation at Break	600	%	ISO 527-2
Retention of mechanical properties after ageing 100ºC/10 days	>70	%	ISO 527
THERMAL			
Brittleness temperature (-76ºC)	0	failures	ASTM D 746
Vicat Softening Temperature (10 N)	96	ºC	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 23ºC	>1E16	ohm·cm	ASTM D 257

(*) 1,9 % Peróxido

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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Storage:

The grade REPSOL ALCUDIA CP121 should be stored in a dry atmosphere, on a paved, drained and not flooded area, at temperatures under 50ºC and protected from UV radiation. Storage under inappropriate conditions could initiate degradation processes or undesired migration of additives included in its formulation which may have a negative influence on the processability and the properties of the transformed product

Disclaimer:

This grade complies with the European regulations for materials for use in food contact. This grade is not intended to be used in medical, pharmaceutical, or healthcare applications, therefore Repsol does not authorize its use in them.

Repsol does not grant express or implicit guarantees that extend beyond the description contained herein. Nothing herein shall constitute any guarantee of merchantability or fitness for a particular purpose. Before using a product sold by Repsol, users must make their own independent determination that the product is safe, legal, and technically suitable for its intended use. Repsol does not assume any responsibility for the use of its materials together with other materials.

Related documents:

The following related documents are available on request, and represent various aspects on the usability and safety of the product:

- Safety data sheet.
- Statement on compliance with food contact regulations.

Recommended consumption period: 12 months from the date of delivery to the customer.

March 2026

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