TECHNICAL DATA SHEET

Repsol ALCUDIA 3802N

REPSOL ALCUDIA 3802N is a black medium density compound, designed to meet the requirements for telecommunication and power cables. The outstanding feature of this product is its very good mechanical properties, its excellent stress cracking resistance and good extrudability. It contains well dispersed carbon black and antioxidant in order to ensure UV radiation resistance and thermal ageing respectively..

Applications:

- Black jacketing of telecommunication and power cables.

The REPSOL ALCUDIA 3802N extrusion conditions depend on the type of equipment used. The recommended melt temperature to obtain the optimum results is 215ºC - 220ºC, together with the use of a screw L/D: 20 and compression rate: 4:1.

REPSOL ALCUDIA 3802N meets the following specifications: ISO 1872 PE KHC 40T006/012; ASTM D 1248 II, C5, Grade J5; NF C 32-060 GE2.

Properties:

Properties	Value	Unit	Test Method
GENERAL			
Melt flow rate (190ºC, 2.16kg)	0.20	g/10 min	ISO 1133
Density at 23 ºC	950	kg/m3	ISO 1183
Oxidation Induction Time (200ºC)	>30	min	UNE EN 728
Environmental Stress Cracking Resistance (F0)	>1000	h	ASTM D 1693
Carbon Black Content	2.25	%	ASTM D 1693
MECHANICAL			
Tensile Strain at Break	35	MPa	ISO 527-2
Elongation at Break	600	%	ISO 527-2
Retention of mechanical properties after ageing 100ºC/10 days	≥75	%	ISO 527-2
Shore Hardness D	60	-	ISO 868
THERMAL			
Vicat Softening Temperature (10 N)	117	ºC	ISO 306
ELECTRICAL			
Dielectric Constant (1 MHz)	2.5	-	ASTM D 1531
Dielectric Dissipation Factor (1 MHz)	2E-4	-	ASTM D 1531

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 3802N 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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