Technical Data Sheet
Chemicals

REPSOL

REPSOL ALCUDIA 49070UV

REPSOL ALCUDIA 49070UV is a high-density polyethylene copolymer of hexene with a high molecular weight. It is specifically engineered for the production of medium and high capacity containers (up to 5000 litres) through extrusion-blow molding, intended for petroleum derivatives and other similar uses. This grade includes stabilizers tailored to the end-use application to enhance thermal and light stability. Additionally, it boasts excellent environmental stress cracking resistance (ESCR) and impact resistance.

This grade meets the requirements for producing containers according to Spanish UNE-53432 parts 1, 2, and 3, EN 13341 in Europe, and NFM-88-560 in France. It is also listed in the German DIBT list of materials for containing petroleum derivatives.

Applications

- High-capacity containers for petroleum derivatives (IBC, Fuel for heating, water, etc.).
- Sheet extrusion

Recommended melt temperature range from 190 to 215ºC. Processing conditions should be optimized for each production line.

PROPERTIES	VALUE*	UNIT	TEST METHOD
GENERAL			
Melt Flow Rate (190ºC, 5 kg)	<0,10	g/10 min	ISO 1133
Melt Flow Rate (190ºC, 21.6 kg)	9.0	g/10 min	ISO 1133
Density at 23ºC	949	kg/m^3	ISO 1183
MECHANICAL			
Tensile strength at Yield	25	MPa	ISO 527-2
Tensile strength at break	30	MPa	ISO 527-2
Elongation at break	800	%	ISO 527-2
Flexural modulus of elasticity	1000	MPa	ISO 178
OTHER			
Vicat Softening Temperature (10 N)	127	ºC	ISO 306
Shore Hardness D	65	°	ISO 868
Environmental Stress Cracking Resistance (F_{50}) (Igepal 10%, 50ºC)	>400	h	ASTM D-1693 (1)
Environmental Stress Cracking Resistance (F_{50}) (Igepal 100%, 50ºC)	>1000	h	ASTM D-1693

* Typical values – Not to be considered as specification

(1) 10% Igepal, 50°C

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 registeres desings cannot be assumed.

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All our polyolefins are recyclable

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Storage

REPSOL ALCUDIA 49070UV 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 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 raw material reception

August 2024

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