TECHNICAL DATA SHEET

Repsol Alcudia® 5703L

REPSOL ALCUDIA 5703L is a high-density polyethylene polymer with medium molecular weight. It is specially designed for aseptic filled bottles of milk produced by extrusion-blow molding. This grade contains stabilizers according to the end use of the item in order to reinforce the thermal stability.

This grade presents an excellent relationship between the different properties required for its application, such as rigidity, impact resistance and organoleptic properties.

Applications:

- Aseptic filled milk bottles and other liquid dairy products

Recommended melt temperature range from 165 to 210°C. Processing conditions should be optimized for each production line.

Properties:

Properties	Value*	Unit	Test Method
General			
Melt flow rate (190°C, 2.16 kg)	0.30	g/10 min	ISO 1133
Melt flow rate (190°C, 21.6 kg)	30	g/10 min	ISO 1133
Density at 23°C	959	kg/m^3	ISO 1183
Mechanical			
Tensile strength at break	30	MPa	ISO 527-2
Elongation at break	790	%	ISO 527-2
Flexural modulus of elasticity	1450	MPa	ISO 178
Other			
Vicat Softening Temperature (10 N)	130	°C	ISO 306
Shore Hardness D	68	°	ISO 868
Environmental Stress Cracking Resistance (F_{50})	15	h	ASTM D-1693 (1)

* 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 registered designs cannot be assumed.

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Storage:

REPSOL ALCUDIA 5703L 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 date of delivery to the customer.

May 2026

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