TECHNICAL DATA SHEET

# Repsol Alcudia® 6006L

REPSOL ALCUDIA 6006L is a high density polyethylene copolymer of hexene with medium molecular weight. It is specially designed to make, by extrusion-blow moulding, milk bottles. This grade contains a package of additives that includes the antioxidant necessary to reinforce the thermal stability.

It has excellent performance in extrusion and tower sterilization. Its characteristics give it, on the one hand, a high rate of extrusion and, on the other, an excellent rigidity that gives the containers a very good resistance to deformation due to stacking loads during storage.

## Applications:

- Bottles (mono and multi-layer) for dairy products and food.

Recommended melt temperature range from 170 to 190ºC. Processing conditions should be optimized for each production line.

## Properties:

| Properties | Value* | Unit | Test Method |
|---|---|---|---|
| **General** | | | |
| Melt flow rate (190ºC, 2.16 kg) | 0.6 | g/10 min | ISO 1133 |
| Melt flow rate (190ºC, 21.6 kg) | 40 | g/10 min | ISO 1133 |
| Density at 23ºC | 961 | kg/m$^3$ | ISO 1183 |
| **Mechanical** | | | |
| Tensile strength at Yield | 30 | MPa | ISO 527-2 |
| Tensile strength at break | 18 | MPa | ISO 527-2 |
| Elongation at break | >300 | % | ISO 527-2 |
| Flexural modulus of elasticity | 1450 | MPa | ISO 178 |
| **Other** | | | |
| Vicat Softening Temperature (10 N) | 130 | ºC | ISO 306 |
| Shore Hardness D | 68 | º | ISO 868 |
| Environmental Stress Cracking Resistance ($F_{50}$) | <10 | h | ASTM D-1693 (1) |

* Typical values - Not to be considered as specification

(1) 10% Igepal, 50ºC



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 6006L 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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