TECHNICAL DATA SHEET

Repsol ALCUDIA 51100

REPSOL ALCUDIA 51100 is a high density polyethylene with a broad bimodal molecular weight distribution designed for the extrusion of pipes. It also can be used as base polymer for identification stripes compound. This product is supplied in natural colour but they can be easily coloured with pigments steady at processing temperature, using dry- colouring or masterbatch techniques. This grade is characterized by its very good mechanical properties, excellent cracking resistance and good resistance to internal pressure.

Applications:

- Pipes general purposes.
- Base polymer for identification stripes

Recommended melt temperature range 200-220ºC. Processing conditions should be optimised for each production line.

Properties:

Properties	Value	Unit	Test Method
GENERAL			
Melt flow rate (190ºC, 5kg)	0.27	g/10 min	ISO 1133
Melt flow rate (190ºC, 21.6kg)	7	g/10 min	ISO 1133
Density at 23 ºC	951	kg/m3	ISO 1183
MECHANICAL			
Tensile Strength at Break	>38	MPa	ISO 527-2
Tensile Strain at Break	>600	%	ISO 527-2
Flexural modulus of elasticity	>1100	MPa	ISO 178
OTHERS			
Vicat Softening temperature (10 N)	125	ºC	ISO 306
Shore Hardness D	60	-	ISO 868
ESCR (F50) (Igepal 10%)	>10000	h	ASTM D-1693
Brittleness temperature	<-70	ºC	ASTM D-746

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 51100 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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