TECHNICAL DATA SHEET

Repsol ALCUDIA T80N

REPSOL ALCUDIA T80N black compound is a high density polyethylene with a broad bimodal molecular weight distribution designed for the extrusion of pressure pipes. It complies with the requirements of EN 12201, with a MRS 8MPa - PE80 classification. The combination of the antioxidant system and minimum of 2.0 % well dispersed carbon black used in REPSOL ALCUDIA T80N provides an excellent protection against thermal oxidationn during processing and good long-term thermal stability and UV resistance.
Because other good mechanical properties and their characteristics, and an excellent ESCR resistance the polyethylene black compound REPSOL ALCUDIA T80N, is designed to produce:

Applications:

- Gas, industrial and drinking water pressure pipes.
- Fittings and valves.
- Large diameter pipes without pressure.

Recommended melt temperature range from 200-210ºC. Processing conditions should be optimized for each production line.

Properties:

Properties	Value	Unit	Test Method
GENERAL			
Melt flow rate (190ºC, 2.16kg)	0.1	g/10 min	ISO 1133
Melt flow rate (190ºC, 5kg)	0.52	g/10 min	ISO 1133
Melt flow rate (190ºC, 21.6kg)	13	g/10 min	ISO 1133
Density at 23 ºC	960	kg/m3	ISO 1183
MECHANICAL			
Tensile Strength at Yield	25	MPa	ISO 527-2
Tensile Strain at Break	>600	%	ISO 527-2
Flexural modulus of elasticity	900	MPa	ISSO 178
INTERNAL PRESSURE RESISTANCE			
Long-term hydrostatic strength for 50 years at 20ºC (97,5% LCL), MRS	>8.0	MPa	ISO TR 9080
OTHER			
Oxidation Induction Time (210ºC)	>20	min	UNE EN 728
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 T80N 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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