

Alcudia® High density polyethylene

Chemicals

Technical data sheet



HDPE ALCUDIA® 5503

DESCRIPTION

ALCUDIA® 5503 is a high-density polyethylene copolymer of hexene, with high molecular weight. It is specially designed to make, by blow molding-extrusion, containers for liquid detergents and chemicals. This grade contains stabilizers according to the end use of the item in order to reinforce the thermal stability.

Good mechanical properties and excellent level of both stiffness and environmental stress cracking resistance can be obtained with ALCUDIA® 5503 due to its molecular weight and density.

TYPICAL APPLICATIONS

Packaging of non-aggressive liquid detergents and chemicals.

Recommended melt temperature range from 180 to 200°C. Processing conditions should be optimized for each production line.

PROPERTIES	VALUE *	UNIT	TEST METHOD
General			
Melt Flow Rate (190°C, 2.16 kg)	0.25	g/10 min	ISO 1133
Melt Flow Rate (190°C, 21.6 kg)	25.0	g/10 min	ISO 1133
Density at 23°C	955	kg/m ³	ISO 1183
Mechanical			
Tensile Strength at Break	28	MPa	ISO 527-2
Elongation at break	700	%	ISO 527-2
Flexural modulus of elasticity	1200	MPa	ISO 178
Other			
Vicat Softening Temperature (10 N)	128	°C	ISO 306
Shore Hardness D	65	°	ISO 868
Environmental Stress Cracking Resistance (F ₅₀)	100	h	ASTM D-1693 (1)

* Typical values – Not to be considered as specification
(1) 10% Igepal, 50°C

ALCUDIA® 5503 complies with the European Directives regarding materials intended for contact with foodstuffs. For further information, please contact our Technical Service and Development Laboratory or our Customer Care Service.

STORAGE

ALCUDIA® 5503 should be stored in a dry atmosphere, on a paved, drained and not flooded area, at temperatures under 60°C and protected from UV radiation. Storage under inappropriate conditions could initiate degradation processes which may have a negative influence on the processability and the properties of the transformed product.

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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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