

Technical Data Sheet

Lupolen 4261AG BD

High Density Polyethylene



Product Description

Lupolen 4261AG BD is a high molecular weight high density polyethylene. Typical customer applications include automotive fuel tank applications if outstanding biodiesel durability is requested. It is supplied in pellets and is stabilized with antioxidants for the extrusion process. The product features an outstanding Environmental Stress Cracking Resistance (ESCR), good chemical resistance in combination with an excellent low temperature impact resistance. Typical processes include blow molding and thermoforming. Physical properties and process ability are very close to *Lupolen* 4261AG.

Lupolen 4261AG BD is not intended for use in medical and pharmaceutical applications. The product can not be used for food contact applications.

Application	Fuel Tanks
Market	Automotive
Processing Method	Extrusion Blow Molding; Thermoforming
Attribute	Antioxidant; Biodiesel durability; High ESCR (Environmental Stress Cracking Resistance); High Impact Resistance

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (190 °C/21.6 kg)	6.0	g/10 min	ISO 1133-1
Density	0.945	g/cm ³	ISO 1183-1
Bulk Density	>0.500	g/cm ³	ISO 60
Mechanical			
Flexural Modulus	1100	MPa	ISO 178
Tensile Modulus	900	MPa	ISO 527-1, -2
Tensile Stress at Yield	24	MPa	ISO 527-1, -2
Tensile Strain at Yield	10	%	ISO 527-1, -2
Environmental Stress Crack Resistance, F ₁₀ (10% Igepal®, Cond B)	1000	hr	ASTM D1693
FNCT, (3.5 MPa, 2% Arkopal N100, 80 °C)	80	hr	ISO 16770
Impact			
Tensile Impact Strength	170	kJ/m ²	ISO 8256
Note: notched, type 1, method A, -30 °C			
Thermal			
Vicat Softening Temperature, (A/50 N)	126	°C	ISO 306
Oxidation Induction Time, (200 °C)	50	min	ISO 11357-6
Peak Melting Point	131	°C	ISO 11357-3
Processing Parameters			
Melt Temperature	180 - 240	°C	

Notes

These are typical property values not to be construed as specification limits.

