

Lupolen 4261 AG

High Density (HMW) Polyethylene

LyondellBasell Industries

Technical Data

Product Description

Lupolen 4261 AG is a high molecular weight high density polyethylene (HDPE). Typical customer applications include automotive fuel tank applications. It is supplied in pellets and is stabilized with antioxidants for the extrusion process. The product features an outstanding Enviromental Stress Cracking Resistance (ESCR), good chemical resistance in combination with an excellent low temperature impact resistance. Typical processes include blow moulding and thermoforming.

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

General

Material Status	• Commercial: Active		
Literature ¹	• Processing - Mold Shrink (English) • Processing - PE Films (English) • Processing - Polyolefin Injection Molding Guide (English) • Technical Datasheet (English) • Technical Datasheet (English)		
Search for UL Yellow Card	• LyondellBasell Industries • Lupolen		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Antioxidant		
Features	• Antioxidant • Good Chemical Resistance	• High ESCR (Stress Crack Resist.) • High Impact Resistance	• High Molecular Weight • Low Temperature Impact Resistance
Uses	• Fuel Tanks		
Forms	• Pellets		
Processing Method	• Extrusion Blow Molding	• Thermoforming	

Physical	Nominal Value Unit	Test Method
Density	0.945 g/cm³	ISO 1183 ASTM D1505
Apparent Density	> 0.50 g/cm³	ISO 60
Melt Mass-Flow Rate (MFR)		
190°C/21.6 kg	5.9 g/10 min	ASTM D1238
190°C/21.6 kg	6.0 g/10 min	ISO 1133
Environmental Stress-Cracking Resistance		
--	1000 hr	ASTM D1693B
F50 ³	> 800 hr	ASTM D1693B
100% Igepal, F50	> 2000 hr	ASTM D1693A
FNCT - 3.5 MPa, 2% Igepal BC/9 (80°C)	3.3 day	ISO 16770

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	900 MPa	ISO 527-2
Tensile Strength		
Yield ⁴	23.1 MPa	ASTM D638
Yield	24.0 MPa	ISO 527-2
Tensile Strain (Yield)	10 %	ISO 527-2
Flexural Modulus		
2% Secant: 3.20 mm, 50.0 mm Span ^{5, 6}	1070 MPa	ASTM D790
--	1100 MPa	ISO 178
Flexural Strength ⁴ (Yield)	23.1 MPa	ASTM D790

Films	Nominal Value Unit	Test Method
Tensile Elongation - MD ^{7, 8} (Break)	600 %	ASTM D882