

# Lupolen 4261 AG

High Density (HMW) Polyethylene

LyondellBasell Industries

## Message:

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 Environmental 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 Information	
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/cm <sup>3</sup>	ISO 1183, ASTM D1505
Apparent Density	> 0.50	g/cm <sup>3</sup>	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 <sup>1</sup>	> 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
Oxidation Induction Time (200°C)	50	min	ISO 11357-6

  

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	900	MPa	ISO 527-2
Tensile Strength			
Yield <sup>2</sup>	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	1070	MPa	ASTM D790
--	1100	MPa	ISO 178
Flexural Strength <sup>3</sup> (Yield)	23.1	MPa	ASTM D790
Films	Nominal Value	Unit	Test Method
Tensile Elongation - MD (Break)	600	%	ASTM D882
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength			ISO 8256/1A
-30°C	170	kJ/m <sup>2</sup>	
23°C	250	kJ/m <sup>2</sup>	
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	126	°C	ISO 306/A50
Melting Temperature (DSC)	131	°C	ISO 3146
Extrusion	Nominal Value	Unit	
Melt Temperature	180 to 240	°C	
NOTE			
1.	Igepal		
2.	Type IV, 50 mm/min		
3.	Type IV, 50 mm/min		

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