Technical Data Sheet

Lupolen 3010D

Low Density Polyethylene

Product Description

Lupolen 3010 D is a non-additivated, low density polyethylene. It is characterized by a high melt strength leading to a good bubble stability during blown film extrusion.
LyondellBasell customers report that films made from *Lupolen* 3010 D exhibit a good shrinkage performance.
Lupolen 3010 D provides the option to produce films with good optical and mechanical properties.
It is delivered in pellet form.

This product is not intended for use in medical and pharmaceutical applications.

Application	Bags & Pouches; Bottles and Vials; Food Packaging Film; Shrink Film
Market	Flexible Packaging; Rigid Packaging
Processing Method	Blown Film; Extrusion Blow Molding
Attribute	Good Optical Properties; Good Processability; Good Toughness

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (190 °C/2.16 kg)	0.25	g/10 min	ISO 1133-1
Density	0.927	g/cm³	ISO 1183-1
Mechanical			
Tensile Modulus	300	MPa	ISO 527-1, -2
Tensile Stress at Yield	13	MPa	ISO 527-1, -2
Environmental Stress Crack Resistance, F_{10} (10% Igepal®, Cond B)	15	hr	ASTM D1693
Film			
Dart Drop Impact Strength, F50	180	g	ASTM D1709
Tensile Strength			
MD	30	MPa	ISO 527-1, -3
TD	27	MPa	ISO 527-1, -3
Tensile Strain at Break			
MD	250	%	ISO 527-1, -3
TD	600	%	ISO 527-1, -3
Coefficient of Friction	>0.7		ISO 8295
Impact			
Failure Energy	5	J/mm	DIN 53373
Thermal			
Vicat Softening Temperature, (A/50)	102	°C	ISO 306
Peak Melting Point	114	°C	ISO 11357-3

Optical			
Haze, (50 µm)	<7	%	ASTM D1003
Gloss			
(20°)	>35		ASTM D2457
(60°)	>90		ASTM D2457
Additional Information			
Test Specimen	Film		
Film properties tested using 50 µm thickness blown film extruded at a melt temperature of 200°C and a blow-up ratio of 2.5:1.			
Processing Parameters			
Extrusion Temperature	170-220	°C	
Blown Film Extrusion			