Technical Data Sheet

Lupolen 2421F

Low Density Polyethylene

Product Description

Lupolen 2421 F is an additivated, low density polyethylene. It is characterized by a good melt strength leading to a good bubble stability during blown film extrusion. It contains an antioxidant and is delivered in pellet form.

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

Application	Agriculture Film; Bags & Pouches; Food Packaging Film; Hygiene Film; Liner Film; Shrink Film
Market	Flexible Packaging
Processing Method	Blown Film
Attribute	Antioxidant; General Purpose; Good Heat Seal; Good Melt Strength; Good Optical Properties; Good Processability

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (190 °C/2.16 kg)	0.75	g/10 min	ISO 1133-1
Density	0.923	g/cm³	ISO 1183-1
Mechanical			
Tensile Modulus	260	MPa	ISO 527-1, -2
Tensile Stress at Yield	11	MPa	ISO 527-1, -2
Film			
Dart Drop Impact Strength, F50	150	g	ASTM D1709
Tensile Strength			
MD	26	MPa	ISO 527-1, -3
TD	24	MPa	ISO 527-1, -3
Tensile Strain at Break			
MD	300	%	ISO 527-1, -3
TD	600	%	ISO 527-1, -3
Coefficient of Friction	>0.8		ISO 8295
Impact			
Failure Energy	5.5	J/mm	DIN 53373
Thermal			
Vicat Softening Temperature, (A/50)	96	°C	ISO 306
Peak Melting Point	111	°C	ISO 11357-3
Optical			
Haze, (50 µm)	<8	%	ASTM D1003

Gloss		
(20°)	>40	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 180°C and a blow-up ratio of 2.5:1.

Processing Parameters

Extrusion Temperature	170-220	°C