

Bynel® 4105

Linear Low Density Polyethylene

DuPont Packaging & Industrial Polymers

Message:

BYNEL® Series 4100 series resins are anhydride-modified, linear low-density polyethylene (LLDPE) resins. All BYNEL Series 4100 series resins are available in pellet form for use in conventional extrusion and coextrusion equipment designed to process polyethylene resins.

BYNEL 4100 series resins adhere to a variety of materials. They are most often used to adhere to EVOH, polyamide, PE and ethylene copolymers.

Series 4100 resins can be used in coextrusion processes including:

blown film

cast film/sheet

blow molding

melt and solid phase thermoforming

sheet and tubing

LLDPE resins are known for their temperature resistance, clarity and toughness.

These physical properties make the 4100 series resins work well in applications such as:

boil-in-bag structures

blow molded containers in which drop strength is important

bag-in-box films

film where LLDPE is the heat seal layer.

General Information	
Features	Good adhesion
Uses	Films
	Blow molding applications
	Pipe fittings
	Sheet
Agency Ratings	FDA 21 CFR 175.105
Forms	Particle
Processing Method	Film extrusion
	Blow molding
	Co-extrusion molding
	Extrusion
	Sheet extrusion molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.930	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	4.5	g/10 min	ASTM D1238, ISO 1133
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	105	°C	ASTM D1525, ISO 306
Melting Temperature (DSC)	125	°C	ASTM D3418, ISO 3146
Freezing Point			
--	110	°C	ISO 3146
--	110	°C	ASTM D3418

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	160	°C
Cylinder Zone 2 Temp.	185	°C
Cylinder Zone 3 Temp.	235	°C
Cylinder Zone 4 Temp.	260	°C
Cylinder Zone 5 Temp.	260	°C
Adapter Temperature	260	°C
Melt Temperature	< 260	°C
Die Temperature	260	°C
Extrusion instructions		

Processing conditions shown are for coextrusion with nylon.

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