

## DuPont™ Bynel® 4140 Anhydride Modified LLDPE

Category : Polymer , Thermoplastic , Polyethylene (PE) , LLDPE

### Material Notes:

BYNEL® Series 4100 resins are anhydride-modified, linear low-density polyethylene (LLDPE) resins. All 4100 series resins are available in pellet form for use in conventional extrusion and coextrusion equipment designed to process polyethylene (PE) resin. BYNEL 4140 is a grade with a higher level of anhydride modification, and is mainly intended for use as a component in a blend with other polyolefin resins. It is not intended for extrusion in its pure form in typical extrusions or coextrusions. Physical properties of BYNEL Series 4100 resins are typical of linear low-density polyethylene resins with similar density and melt index values. Use of these adhesive resins in coextruded PE/barrier structures offers improved thermal resistance over that of ethylene vinyl acetate-based adhesive 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. BYNEL 4140 resin conforms with the Code of Federal Regulations, Title 21, Paragraph 175.105, covering the use of adhesive interlayers in composite packages for food use. This regulation describes adhesives which may be safely used as components of articles intended for use in packaging, transporting or holding food. This regulation requires that either (1) the adhesive is separated from the food by a functional barrier, or (2) the quantity of adhesive which contacts fatty or aqueous foods does not exceed the trace amounts at the seams or edges. Customers should satisfy themselves that the food contact material is serving as a functional barrier to the adhesive.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Bynel-4140-Anhydride-Modified-LLDPE.php](http://www.lookpolymers.com/polymer_DuPont-Bynel-4140-Anhydride-Modified-LLDPE.php)

Physical Properties	Metric	English	Comments
Density	0.920 g/cc	0.0332 lb/in <sup>3</sup>	ASTM D792, ISO 1183
Melt Flow	1.5 g/10 min @Load 2.16 kg, Temperature 190 °C	1.5 g/10 min @Load 4.76 lb, Temperature 374 °F	ASTM D1238, ISO 1133

Thermal Properties	Metric	English	Comments
Melting Point	100 °C	212 °F	Freezing Point; ASTM D3418
	121 °C	250 °F	ASTM D3418, ISO 3146
Vicat Softening Point	102 °C	216 °F	ASTM D1525, ISO 306

Processing Properties	Metric	English	Comments
Processing Temperature	<= 260 °C	<= 500 °F	
Feed Temperature	160 °C	320 °F	CoExtrusion with EVOH Processing

Processing Properties	160 °C Metric	320 °F English	CoExtrusion with Nylon Processing Comments
Zone 2	185 °C	365 °F	CoExtrusion with EVOH Processing
	185 °C	365 °F	CoExtrusion with Nylon Processing
Zone 3	235 °C	455 °F	CoExtrusion with EVOH Processing
	235 °C	455 °F	CoExtrusion with Nylon Processing
Zone 4	235 °C	455 °F	CoExtrusion with EVOH Processing
	260 °C	500 °F	CoExtrusion with Nylon Processing
Zone 5	235 °C	455 °F	CoExtrusion with EVOH Processing
	260 °C	500 °F	CoExtrusion with Nylon Processing
Adapter Temperature	235 °C	455 °F	CoExtrusion with EVOH Processing
	260 °C	500 °F	CoExtrusion with Nylon Processing
Die Temperature	235 °C	455 °F	CoExtrusion with EVOH Processing
	260 °C	500 °F	CoExtrusion with Nylon Processing
Melt Temperature	210 - 235 °C	410 - 455 °F	CoExtrusion with EVOH Processing
	<= 260 °C	<= 500 °F	CoExtrusion with Nylon Processing

## Contact Songhan Plastic Technology Co.,Ltd.

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