



Bynel® 21E787

DuPont Packaging & Industrial Polymers - Ethylene Acrylate Copolymer

Sunday, November 3, 2019

General Information

Product Description

BYNEL® Series 2100 resins are anhydride modified ethylene acrylate resins. They contain a temperature stable ester which makes them functional in high temperature coextrusions. They are available in pellet form for use in conventional extrusion and coextrusion equipment designed to process polyethylene (PE) resins.

Characteristics/Benefits

Physical properties of BYNEL Series 2100 resins are typical of polyethylene/acrylate copolymer resins with similar density and melt index values.

Applications

BYNEL 2100 series resins adhere to a wide variety of materials. They are most often used to adhere to PE and PET. They also adhere to EVA, EVOH, polyamide, and PP.

The BYNEL 2100 series resins can be used in a variety of coextrusion coating and laminating applications for grades with the appropriate melt flow properties. Lower melt flow rate grades are most often used in mono or multi-layer blown or cast film processes.

General

Material Status	• Experimental: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Food Contact Acceptable	• Good Adhesion	
Uses	• Adhesives	• Coating Applications	• Laminates
Agency Ratings	• FDA 21 CFR 175.105		
Forms	• Pellets		
Processing Method	• Coextrusion	• Extrusion	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.932		ASTM D792
Density	0.930	g/cm ³	ISO 1183
Melt Mass-Flow Rate (190°C/2.16 kg)	1.6	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.6	g/10 min	ISO 1133
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	126	°F	ASTM D1525
Vicat Softening Temperature	126	°F	ISO 306
Peak Melting Temperature	198	°F	ASTM D3418
Melting Temperature (DSC)	198	°F	ISO 3146
Freezing Point			
--	165	°F	ASTM D3418
--	165	°F	ISO 3146

Additional Information	Nominal Value	Unit
Maximum Processing Temperature	500	°F

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Processing Information

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	320	°F
Cylinder Zone 2 Temp.	410	°F
Cylinder Zone 3 Temp.	455	°F
Cylinder Zone 4 Temp.	455	°F
Cylinder Zone 5 Temp.	455	°F
Adapter Temperature	455	°F
Melt Temperature	410 to 428	°F
Die Temperature	455	°F

Extrusion Notes

Processing conditions shown are for coextrusion with EVOH.

Processing conditions for coextrusion with nylon:

Zone 1: 160°C

Zone 2: 210°C

Zone 3: 235°C

Zone 4: 260°C

Zone 5: 260°C

Adapter: 260°C

Die: 260°C

Notes

¹ Typical properties: these are not to be construed as specifications.