



## Surlyn® 1650

DuPont Packaging & Industrial Polymers - Ionomer

Monday, September 21, 2020

### General Information

#### Product Description

DuPont™ Surlyn® 1650 is an ionomer of ethylene acid copolymer.

The resin can be processed in conventional blown film, cast film, sheet extrusion and coextrusion equipment designed to process polyethylene and ethylene copolymer type resins.

#### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Uses	• Blown Film • Cast Film	• Film • Sheet	
Agency Ratings	• FDA 21 CFR 177.1330(a)		
Forms	• Pellets		
Processing Method	• Blown Film • Cast Film	• Coextrusion • Sheet Extrusion	

### ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.942		ASTM D792
Density	0.940	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (190°C/2.16 kg)	1.8	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.8	g/10 min	ISO 1133
Ion Type	Zinc		
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	163	°F	ASTM D1525
Vicat Softening Temperature	163	°F	ISO 306
Peak Melting Temperature	207	°F	ASTM D3417
Melting Temperature (DSC)	207	°F	ISO 3146
Freezing Point			
--	163	°F	ASTM D3417
--	163	°F	ISO 3146

### 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	320 to 500	°F
Die Temperature	455	°F

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### Extrusion Notes

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Blown Film Parameters:

Feed Zone: 135°C

Second Zone: 160°C

Third Zone: 185°C

Fourth Zone: 185°C

Fifth Zone: 185°C

Adapter Zone: 185°C

Die Zone: 185°C

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.