Surlyn® 1707

DuPont Packaging & Industrial Polymers - Ionomer

Monday, September 21, 2020

General Information

Product Description

DuPont™ Surlyn® 1707 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
Features	• Food Contact Acceptable		
Uses	• Blown Film • Cast Film	• Film • Sheet	
Agency Ratings	• FDA 21 CFR 177.1330(a)		
Processing Method	• Blown Film • Cast Film	• Coextrusion • Sheet Extrusion	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.952		ASTM D792
Density	0.950	g/cm³	ISO 1183
Melt Mass-Flow Rate (190°C/2.16 kg)	0.90	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.90	g/10 min	ISO 1133
Ion Type	Sodium		
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	136	°F	ASTM D1525
Vicat Softening Temperature	136	°F	ISO 306
Peak Melting Temperature	198	°F	ASTM D3417
Melting Temperature (DSC)	198	°F	ISO 3146
Freezing Point			
--	124	°F	ASTM D3417
--	124	°F	ISO 3146

Processing Information

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	275	°F
Cylinder Zone 2 Temp.	320	°F
Cylinder Zone 3 Temp.	365	°F
Cylinder Zone 4 Temp.	365	°F
Cylinder Zone 5 Temp.	365	°F
Adapter Temperature	365	°F
Melt Temperature	320 to 500	°F
Die Temperature	365	°F

Extrusion Notes

The above processing values are for blown film.
Cast film/sheet parameters:
Feed Zone: 160°C
Second Zone: 210°C
Third Zone: 235°C
Fourth Zone: 235°C
Fifth Zone: 235°C
Adapter Zone: 235°C
Die Zone: 235°C

Notes

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