Surlyn® 8660

Monday, September 21, 2020

DuPont Packaging & Industrial Polymers - Ethylene Methacrylic Acid

General Information

Product Description

DuPont™ Surlyn® 8660 is an ionomer of ethylene acid copolymer.

This polymeric material can be processed in conventional extrusion and injection equipment designed to process polyethylene and ethylene copolymer type resins, to create various shapes and sheeting.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Copolymer		
Uses	• Sheet		
Forms	• Pellets		
Processing Method	• Extrusion • Foam Extrusion	• Foam Processing • Injection Molding	• 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)	10	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	10	g/10 min	ISO 1133
Ion Type	Sodium		
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Yield, 73°F, Compression Molded)	1890	psi	ASTM D638
Tensile Strength (Break, 73°F)	3340	psi	ASTM D638
Tensile Stress (Break, 73°F)	3340	psi	ISO 527-2
Tensile Elongation (Break, 73°F)	470	%	ASTM D638
Tensile Strain (Break, 73°F)	470	%	ISO 527-2
Flexural Modulus			ASTM D790
-4°F	93700	psi	
73°F	33400	psi	
Abrasion Resistance - NBS Index	170		ASTM D1630
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F)	0.11	ft·lb/in	ASTM D256
Tensile Impact Strength			ASTM D1822
-40°F	128	ft·lb/in²	
73°F	164	ft·lb/in²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	62		ASTM D2240
Shore Hardness (Shore D)	62		ISO 868

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Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-103	°F	ASTM D746
Vicat Softening Temperature	160	°F	ASTM D1525
Vicat Softening Temperature	160	°F	ISO 306
Peak Melting Temperature	203	°F	ASTM D3418
Melting Temperature (DSC)	203	°F	ISO 3146
Freezing Point			
--	165	°F	ASTM D3418
--	165	°F	ISO 3146
Optical	**Nominal Value**	**Unit**	**Test Method**
Haze (250.0 mil)	11.0	%	ASTM D1003

Processing Information

Injection	Nominal Value	Unit
Processing (Melt) Temp	365 to 545	°F

Notes

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

[2] Type IV, 2.0 in/min