



Surlyn® 8940

DuPont Packaging & Industrial Polymers - Ethylene Methacrylic Acid

Monday, September 21, 2020

General Information

Product Description

DuPont™ Surlyn® 8940 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	• Blow Molding Applications	• Sheet	
Automotive Specifications	• FORD ESB-M4D330-A1		
Forms	• Pellets		
Processing Method	• Blow Molding • Extrusion	• 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/cm ³	ISO 1183
Melt Mass-Flow Rate (190°C/2.16 kg)	2.8	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	2.8	g/10 min	ISO 1133
Ion Type	Sodium		
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break, 73°F)	4790	psi	ASTM D638
Tensile Stress (Break, 73°F)	4790	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	104000	psi	
73°F	50800	psi	
Flexural Strength (Yield)	2180	psi	ASTM D790
Abrasion Resistance - NBS Index	370		ASTM D1630
Elastomers	Nominal Value	Unit	Test Method
Tear Strength (73°F)	8.45	lbf/in	ASTM D624
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	19	ft-lb/in	ASTM D256
Tensile Impact Strength			ASTM D1822
-40°F	360	ft-lb/in ²	
73°F	485	ft-lb/in ²	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	65		ASTM D2240
Shore Hardness (Shore D)	65		ISO 868

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Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-159	°F	ASTM D746
Vicat Softening Temperature	145	°F	ASTM D1525
Vicat Softening Temperature	145	°F	ISO 306
Peak Melting Temperature	201	°F	ASTM D3418
Melting Temperature (DSC)	201	°F	ISO 3146
Freezing Point			
--	138	°F	ASTM D3418
--	138	°F	ISO 3146
Optical	Nominal Value	Unit	Test Method
Haze (250.0 mil)	5.00	%	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.