



## Surlyn® 9910

DuPont Packaging & Industrial Polymers - Ethylene Methacrylic Acid

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### General Information

#### Product Description

DuPont™ Surlyn® 9910 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 • Europe • North America • Asia Pacific • Latin America
Features	• Copolymer
Uses	• Blow Molding Applications • Sheet
Forms	• Pellets
Processing Method	• Blow Molding • Extrusion • Injection Molding

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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.972		ASTM D792
Density	0.970	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (190°C/2.16 kg)	0.70	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.70	g/10 min	ISO 1133
Ion Type	Zinc		

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup> (Yield, 73°F, Compression Molded)	2000	psi	ASTM D638
Tensile Strength (Break, 73°F)	3600	psi	ASTM D638
Tensile Stress (Break, 73°F)	3600	psi	ISO 527-2
Tensile Elongation (Break, 73°F)	290	%	ASTM D638
Tensile Strain (Break, 73°F)	290	%	ISO 527-2
Flexural Modulus			ASTM D790
-4°F	106000	psi	
73°F	47900	psi	
Abrasion Resistance - NBS Index	610		ASTM D1630

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	6.8	ft-lb/in	ASTM D256
Tensile Impact Strength			ASTM D1822
-40°F	480	ft-lb/in <sup>2</sup>	
73°F	485	ft-lb/in <sup>2</sup>	

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	64		ASTM D2240
Shore Hardness (Shore D)	64		ISO 868

Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-157	°F	ASTM D746
Vicat Softening Temperature	144	°F	ASTM D1525
Vicat Softening Temperature	144	°F	ISO 306

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Thermal	Nominal Value	Unit	Test Method
Peak Melting Temperature	187	°F	ASTM D3418
Melting Temperature (DSC)	187	°F	ISO 3146
Freezing Point			
--	115	°F	ASTM D3418
--	115	°F	ISO 3146
Optical	Nominal Value	Unit	Test Method
Haze (250.0 mil)	6.00	%	ASTM D1003

### Processing Information

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

### Notes

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

<sup>2</sup> Type IV, 2.0 in/min