



## Surlyn® 9020

DuPont Packaging & Industrial Polymers - Ethylene Methacrylic Acid

Monday, September 21, 2020

### General Information

#### Product Description

DuPont™ Surlyn® 9020 is an ionomer of ethylene acid acrylate terpolymer.

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	<ul style="list-style-type: none"><li>• Africa &amp; Middle East</li><li>• Asia Pacific</li></ul>	<ul style="list-style-type: none"><li>• Europe</li><li>• Latin America</li></ul>	<ul style="list-style-type: none"><li>• North America</li></ul>
Features	• Terpolymer		
Uses	<ul style="list-style-type: none"><li>• Blow Molding Applications</li></ul>	<ul style="list-style-type: none"><li>• Sheet</li></ul>	
Forms	• Pellets		
Processing Method	<ul style="list-style-type: none"><li>• Blow Molding</li><li>• Extrusion</li></ul>	<ul style="list-style-type: none"><li>• Injection Molding</li><li>• Sheet Extrusion</li></ul>	

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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.962		ASTM D792
Density	0.960	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (190°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.0	g/10 min	ISO 1133
Ion Type	Zinc		
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break, 73°F)	3770	psi	ASTM D638
Tensile Stress (Break, 73°F)	3770	psi	ISO 527-2
Tensile Elongation (Break, 73°F)	510	%	ASTM D638
Tensile Strain (Break, 73°F)	510	%	ISO 527-2
Flexural Modulus			ASTM D790
-4°F	77000	psi	
73°F	14500	psi	
Abrasion Resistance - NBS Index	220		ASTM D1630
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength			ASTM D1822
-40°F	565	ft-lb/in <sup>2</sup>	
73°F	610	ft-lb/in <sup>2</sup>	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	55		ASTM D2240
Shore Hardness (Shore D)	55		ISO 868
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-170	°F	ASTM D746
Vicat Softening Temperature	135	°F	ASTM D1525
Vicat Softening Temperature	135	°F	ISO 306
Peak Melting Temperature	185	°F	ASTM D3418
Melting Temperature (DSC)	185	°F	ISO 3146

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Thermal	Nominal Value	Unit	Test Method
Freezing Point			
--	147	°F	ASTM D3418
--	147	°F	ISO 3146
Optical	Nominal Value	Unit	Test Method
Haze (250.0 mil)	7.00	%	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.