



Surlyn® 1855

DuPont Packaging & Industrial Polymers - Ionomer

Monday, September 21, 2020

General Information

General

Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Features	• Abrasion Resistant • Good Stiffness	• High Clarity • High ESCR (Stress Crack Resist.)	• Low Temperature Heat Sealability • Low Temperature Toughness
Uses	• Film • Food Packaging	• Liners • Medical Packaging	• Pharmaceuticals
Agency Ratings	• FDA 21 CFR 177.1330		
Forms	• Pellets		
Processing Method	• Blown Film	• Cast Film	• Coextrusion

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.940		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	0.90	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	2	mil	
Secant Modulus - 1% Secant, MD	23000	psi	ASTM D882
Secant Modulus - 1% Secant, TD	22000	psi	ASTM D882
Tensile Strength - MD (Break)	5300	psi	ASTM D882
Tensile Strength - TD (Break)	5200	psi	ASTM D882
Tensile Elongation - MD (Break)	350	%	ASTM D882
Tensile Elongation - TD (Break)	350	%	ASTM D882
Dart Drop Impact	700	g	ASTM D1709
Elmendorf Tear Strength - MD	38	g	ASTM D1922
Elmendorf Tear Strength - TD	50	g	ASTM D1922
Water Vapor Transmission	1.0	g/100 in ² /24 hr	ASTM E96
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	144	°F	ASTM D1525
Melting Temperature	190	°F	
Optical	Nominal Value	Unit	Test Method
Haze	4.50	%	ASTM D1003
Additional Information			
Ion Type: Zinc			

Processing Information

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	300	°F
Cylinder Zone 2 Temp.	350	°F
Cylinder Zone 3 Temp.	400	°F
Cylinder Zone 4 Temp.	400	°F
Cylinder Zone 5 Temp.	400	°F
Melt Temperature	400 to 440	°F

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Extrusion	Nominal Value	Unit
Die Temperature	400	°F

Notes

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