

# Tenite™ Propionate 350A0096914 Natural, Trsp

Cellulose Acetate Propionate

Eastman Chemical Company

## Message:

Tenite™ cellulosic plastics are noted for their excellent balance of properties - toughness, hardness, strength, surface gloss, clarity, and a warm feel. The mechanical properties of Tenite™ cellulosic plastics differ with plasticizer levels. Lower plasticizer content yields a harder surface, higher heat resistance, greater rigidity, higher tensile strength, and better dimensional stability. Higher plasticizer content increases impact strength. Tenite™ cellulosic plastics are available in natural, clear, selected ambers or smoke transparents and black translucent. Color concentrates are available in let-down ratios from 10:1 to 40:1. Tenite™ Cellulose Acetate Propionate 350-14 has a plasticizer level of 14%. It meets FDA requirements for certain food-contact applications when supplied in specific FDA color numbers.

General Information			
UL YellowCard	E118289-101981946		
Additive	Plasticizer (14%)		
Features	E-beam Sterilizable Food Contact Acceptable Good Chemical Resistance Good Color Stability Good Processability Good Strength Good Toughness High Clarity High Gloss High Hardness Plasticized Radiation Sterilizable Renewable Resource Content Soft		
Uses	Medical/Healthcare Applications		
Agency Ratings	FDA Food Contact, Unspecified Rating		
Appearance	Amber Black Clear/Transparent Natural Color		
Forms	Pellets		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow	0.20 to 0.60	%	ASTM D955
Water Absorption (23°C, 24 hr)	1.5	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method

Rockwell Hardness (R-Scale, 23°C)	80		ASTM D785
<b>Mechanical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Strength			ASTM D638
Yield, 23°C	31.7	MPa	
Break, 23°C	36.5	MPa	
Tensile Elongation (Break, 23°C)	40	%	ASTM D638
Flexural Modulus (23°C)	1520	MPa	ASTM D790
Flexural Strength (Yield, 23°C)	41.4	MPa	ASTM D790
<b>Impact</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Notched Izod Impact			ASTM D256
-40°C	110	J/m	
23°C	420	J/m	
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load <sup>1</sup>			ASTM D648
0.45 MPa, Annealed	84.0	°C	
1.8 MPa, Annealed	76.0	°C	
Vicat Softening Temperature <sup>2</sup>	100	°C	ASTM D1525
CLTE - Flow (23°C)	2.0E-5	cm/cm/°C	ASTM D696
Specific Heat (23°C)	1260 to 1670	J/kg/°C	DSC
Thermal Conductivity <sup>3</sup> (23°C)	0.25	W/m/K	ASTM C177
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Dielectric Strength (23°C)	12 to 19	kV/mm	ASTM D149
Dielectric Constant (23°C, 1 MHz)	3.30 to 3.80		ASTM D150
Dissipation Factor (23°C, 1 MHz)	0.010 to 0.15		ASTM D150
<b>Optical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Refractive Index	1.460 to 1.490		ASTM D542
Transmittance (1520 μm)	> 90.0	%	ASTM D1003
Haze (1520 μm)	< 8.5	%	ASTM D1003

**NOTE**

1. Conditioned 4 hours at 70°C (158°F)
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3. Range: 0.17 to 0.33

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