Tenite™ Propionate 377E4861312 Clear, 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 377-12 has a plasticizer level of 12%. It meets FDA requirements for certain food-contact applications when supplied in specific FDA color numbers.

General Information			
Additive	Plasticizer (12%)		
Features	Food Contact Acceptable Good Strength Good Toughness High Clarity High Gloss High Hardness Plasticized Renewable Resource Content Soft		
Uses	Packaging Profiles Tubing		
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^3	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)	78		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D638

Yield, 23°C	31.7	MPa	
Break, 23°C	33.1	MPa	
Tensile Elongation (Break, 23°C)	45	%	ASTM D638
Flexural Modulus (23°C)	1450	MPa	ASTM D790
Flexural Strength (Yield, 23°C)	41.4	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-40°C	110	J/m	
23°C	420	J/m	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load [1]			ASTM D648
0.45 MPa, Annealed	83.0	°C	
1.8 MPa, Annealed	75.0	°C	
Vicat Softening Temperature [2]	96.0	°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 [3] (23°C)	0.25	W/m/K	ASTM C177
Electrical	**Nominal Value**	**Unit**	**Test Method**
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
Optical	**Nominal Value**	**Unit**	**Test Method**
Refractive Index	1.460 to 1.490		ASTM D542
Transmittance (1520 µm)	> 90.0	%	ASTM D1003
Haze (1520 µm)	< 8.5	%	ASTM D1003
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Soluble Matter Loss (23°C)	0.10	%	ASTM D570
Weight Loss on Heating - 72 hrs (80°C)	0.40	%	ASTM D1562
NOTE			
1.	Conditioned 4 hours at 70°C (158°F)		
2.	Conditioned 4 hours at 70°C (158°F)		
3.	Range: 0.17 to 0.33		

Recommended distributors for this material

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