Tenite™ Propionate 383A2R30010, 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 383-10 contains a mold release and has a plasticizer level of 10%.

General Information	
Additive	Mold Release Plasticizer (10%)
Features	Good Mold Release Good Strength Good Toughness High Clarity High Gloss High Hardness High Heat Resistance Plasticized Renewable Resource Content Soft
Uses	Personal Care Sporting Goods Toothbrush Handles Toys
Appearance	Amber Black Clear/Transparent Natural Color
Forms	Pellets

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.21	g/cm^3	ASTM D792
Molding Shrinkage - Flow	0.20 to 0.60	%	ASTM D955

Water Absorption (23°C, 24 hr)	1.6	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale, 23°C)	85		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D638
Yield, 23°C	34.9	MPa	
Break, 23°C	35.8	MPa	
Tensile Elongation (Break, 23°C)	45	%	ASTM D638
Flexural Modulus (23°C)	1590	MPa	ASTM D790
Flexural Strength (Yield, 23°C)	46.0	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-40°C	100	J/m	
23°C	290	J/m	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load [1]			ASTM D648
0.45 MPa, Annealed	86.0	°C	
1.8 MPa, Annealed	77.0	°C	
Vicat Softening Temperature [2]	100	°C	ASTM D1525
CLTE - Flow (23°C)	1.1E-4 to 1.7E-4	cm/cm/°C	ASTM D696
Specific Heat (23°C)	1260 to 1670	J/kg/°C	DSC
Thermal Conductivity (23°C)	0.17 to 0.33	W/m/K	ASTM C177
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity (23°C)	1.0E+13 to 1.0E+15	ohms·cm	ASTM D257
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)		

Recommended distributors for this material

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