Friday, April 8, 2016

Tenite™ Propionate 380A3V32818 Clear, Trsp

Eastman Chemical Company - *Cellulose Acetate Propionate*

Units English ▼

Action **Legend (Open)**

General Information

Product Description

Tenite™ cellulosic plastics are noted for their excellent balance of properties - toughness, hardness, strength, surface gloss, clarity, and a warm feel. The mechanical properties if 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™ Cellulosic Acetate Propionate 380-18 has a plasticizer level of 18%. It is resistant to high temperatures.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Plasticizer (18%)		
Features	• Good Strength • Good Toughness • High Clarity	• High Gloss • High Hardness • High Heat Resistance	• Plasticized • Renewable Resource Content • Soft
Uses	• Eyeglasses		
Appearance	• Amber • Black	• Clear/Transparent • Natural Color	
Forms	• Pellets		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19		ASTM D792
Molding Shrinkage - Flow	2.0E-3 to 6.0E-3	in/in	ASTM D955
Water Absorption (73°F, 24 hr)	1.4	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield, 73°F)	3210	psi	ASTM D638
Tensile Strength (Break, 73°F)	4000	psi	ASTM D638
Tensile Elongation (Break, 73°F)	35	%	ASTM D638
Flexural Modulus (73°F)	170000	psi	ASTM D790
Flexural Strength (Yield, 73°F)	4210	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-40°F	2.0	ft·lb/in	
73°F	9.8	ft·lb/in	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale, 73°F)	55		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load [2] (66 psi, Annealed)	171	°F	ASTM D648
Deflection Temperature Under Load [2] (264 psi, Annealed)	153	°F	ASTM D648
Vicat Softening Temperature [2]	189	°F	ASTM D1525
CLTE - Flow (73°F)	1.1E-5	in/in/°F	ASTM D696
Specific Heat (73°F)	0.301 to 0.399	Btu/lb/°F	DSC

Thermal Conductivity [3] (73°F)	1.7	Btu·in/hr/ft²/°F	ASTM C177

Electrical	Nominal Value	Unit	Test Method
Dielectric Strength (73°F)	300 to 470	V/mil	ASTM D149
Dielectric Constant (73°F, 1 MHz)	3.30 to 3.80		ASTM D150
Dissipation Factor (73°F, 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 (59.8 mil)	> 90.0	%	ASTM D1003
Haze (59.8 mil)	< 8.5	%	ASTM D1003

Additional Information	Nominal Value	Unit	Test Method
Soluble Matter Loss (73°F)	0.10	%	ASTM D570
Weight Loss on Heating - 72 hrs (176°F)	1.0	%	ASTM D1562

Notes

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

[2] Conditioned 4 hours at 70°C (158°F)

[3] Range: 0.17 to 0.33