



TENITE

propionate

Formulas 360, 371, 375, 376, 377

Selector Chart

Plastics
made from wood pulp—
a renewable resource



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TENITE Propionate Formulas 360, 371, 375, 376, 377

Property ^a	Unit	ASTM Method					
Plasticizer	%	—	7	9	12	16	
Flow Designation		D 569	H4	H3	H2	H	
Flow Temperature	°C	D 569	170	165	160	155	
	°F		338	329	320	311	
Specific Gravity		D 792	1.21	1.21	1.20	1.19	
MECHANICAL							
Tensile Stress @ Yield 50 mm/min (2 in./min)	MPa	D 638	41.4	36.5	31.7	26.9	
	psi		6,000	5,300	4,600	3,900	
Tensile Stress @ Break 50 mm/min (2 in./min)	MPa	D 638	40.7	37.2	33.1	30.3	
	psi		5,900	5,400	4,800	4,400	
Elongation @ Break 50 mm/min (2 in./min)	%	D 638	50	45	45	45	
Flexural Modulus 1.27 mm/min (0.05 in./min)	MPa	D 790	1,862	1,655	1,448	1,241	
	10 ⁵ psi		2.70	2.40	2.10	1.80	
Flexural Yield Strength 1.27 mm/min (0.05 in./min)	MPa	D 790	55.8	48.3	41.4	35.2	
	psi		8,100	7,000	6,000	5,100	
Rockwell Hardness	R Scale	D 785	95	88	78	68	
	23°C		J/m	203	224	416	>533
Izod Impact Strength, Notched	73°F	D 256	3.8	4.2	7.8	>10	
	−40°C		J/m	85	96	107	123
	−40°F		ft·lbf/in.	1.6	1.8	2.0	2.3
THERMAL							
Deflection Temperature [Conditioned 4h @ 70°C (158°F)]	1.82 MPa	D 648	82	78	75	72	
	264 psi		°F	180	172	167	162
	0.455 MPa		°C	92	88	83	80
	66 psi		°F	198	190	181	176
Vicat Softening Temperature [Conditioned 4h @ 70°C (158°F)]	°C	D 1525	107	102	96	92	
	°F		225	216	205	198	
PERMANENCE							
Water Absorption (24h Immersion)	%	D 570	1.7	1.6	1.5	1.4	
Soluble Matter Loss	%		0.1	0.1	0.1	0.1	
Weight Loss on Heating [72h @ 80°C (176°F)]	%	D 1562	0.3	0.4	0.4	1.3	

^aUnless noted otherwise, all tests are run @ 23°C (73°F) and 50% relative humidity.

Formula 360—base; FDA.¹

Formula 371—FDA;¹ mold release.

Formula 375—standard inventory.²

Formula 376—UVI; standard inventory.²

Formula 377—FDA;¹ standard inventory.²

¹Meets FDA requirements when supplied in FDA color numbers.

²Available in 12% plasticizer only.

MISCELLANEOUS PROPIONATE PROPERTIES

Refractive Index (ASTM D 542)	1.46–1.49
Light Transmission [1.52-mm (0.06-in.) thickness] (ASTM E 308)	>90%
UV Light Screening (>99% Absorbed) (ASTM E 308)	Formulations Available on Request
Haze [1.52-mm (0.06-in.) thickness] (ASTM D 1003)	<8.5%
Specific Heat @ 23°C (73°F) (DSC)	1.26–1.67 kJ/kg·K (0.301–0.399 Btu/lb·°F)
Thermal Conductivity (ASTM C 177)	0.17–0.33 W/m·K (1.2–2.3 Btu·in./h·ft ² ·°F)
Coefficient of Linear Thermal Expansion (ASTM D 696)	11–17 × 10 ⁻⁵ mm/mm·°C (6–9 × 10 ⁻⁵ in./in.·°F)
Mold Shrinkage (ASTM D 955)	0.2%–0.6%
Dielectric Strength (ASTM D 149)	11.8–18.7 kV/mm (300–475 V/mil)
Dielectric Constant @ 1 MHz (ASTM D 150)	3.3–3.8
Dissipation Factor @ 1 MHz (ASTM D 150)	0.01–0.15
Volume Resistivity (ASTM D 257)	10 ¹³ –10 ¹⁵ ohm·cm

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

Conversions of metric/U.S. customary values may have been rounded off and therefore may not be exact conversions.

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Material Safety Data Sheets providing safety precautions that should be observed in handling and storing Eastman products are available on request. You should obtain and review the available material safety information before handling any of these products. If any materials mentioned are not Eastman products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be observed.

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