# Tenite<sup>™</sup> Propionate 380A2R30015 Natural, Trsp

# Cellulose Acetate Propionate

## Eastman Chemical Company

#### Message:

Tenite<sup>™</sup> 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<sup>™</sup> 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<sup>™</sup> 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<sup>™</sup> Cellulose Acetate Propionate 380-15 has a plasticizer level of 15%. It is resistant to high temperatures.

Additive   Plasticizer (15%)     Features   Good Strength     Good Toughness   High Clarity     High Clarity   High Clarity     High Clarity   High Hardness     High Hardness   High Hardness     Plasticized   Renewable Resource Content     Soft   Soft     Uses   Eyeglasses     Flooring Maintenance/Repair     Household Goods     Appearance   Amber     Black   Clear/Transparent     Clear/Transparent   Soft     Physical   Nominal Value   Unt     Specific Gravity   1.19   g/cm³   ASTM D792     Molding Shrinkage - Flow   0.20 to 0.60   %   ASTM D792     Mater Absorption (23°C, 24 hr)   1.5   %   ASTM D792     Mater Absorption (23°C, 24 hr)   1.5   %   ASTM D792     Materas (K-Scale, 23°C)   72   ASTM D782     Machanal   Nominal Value   Unit   Test Method     Rockwell Hardness (K-Scale, 23°C)   72   ASTM D782     Mechanical   Nominal Value   Unit   Test Method  <	General Information					
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MechanicalNominal ValueUnitTest MethodTensile StrengthASTM D638	Hardness	Nominal Value	Unit	Test Method		
Tensile Strength ASTM D638	Rockwell Hardness (R-Scale, 23°C)	72		ASTM D785		
	Mechanical	Nominal Value	Unit	Test Method		
Yield, 23°C 26.9 MPa	Tensile Strength			ASTM D638		
	Yield, 23°C	26.9	MPa			

Break, 23°C	31.0	MPa	
Tensile Elongation (Break, 23°C)	35	%	ASTM D638
Flexural Modulus (23°C)	1340	MPa	ASTM D790
Flexural Strength (Yield, 23°C)	35.2	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-40°C	96	J/m	
23°C	440	J/m	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load <sup>1</sup>			ASTM D648
0.45 MPa, Annealed	80.0	°C	
1.8 MPa, Annealed	71.0	°C	
Vicat Softening Temperature <sup>2</sup>	92.0	°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 <sup>3</sup> (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)	0.70	%	ASTM D1562
NOTE			
1.	Conditioned 4 hours at 70°C (158°F)		
	Conditioned 4 hours at 70°C		
2.	(158°F)		

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### Recommended distributors for this material

# Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

