EASTMAN

Technical Data Sheet

Tenite™ Propionate 307E4000022 Clear Trsp

Applications

- Ophthalmics
- Safety glasses/shield
- Sporting equipment

Key Attributes

- Ease of processing
- Excellent clarity
- Excellent toughness
- Fast cycle times
- Good chemical resistance
- Good melt flowability

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 307-22 has a plasticizer level of 22%

Typical Properties

Property[a]	Test Method[b]	Typical Value, Units[c]
General		
Plasticizer		22 %
Specific Gravity	D 792	1.18
Mechanical Properties		
Tensile Stress @ Yield	D 638	19.4 MPa (2814 psi)
Tensile Stress @ Break	D 638	24.8 MPa (3597 psi)
Elongation @ Yield	D 638	3 %
Elongation @ Break	D 638	86 %
Tensile Modulus	D 638	927 MPa (1.34 x 10^5 psi)
Flexural Modulus	D 790	981 MPa (1.42 x 10^5 psi)
Durometer Hardness	D 2240	64
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	502 J/m (9.4 ft·lbf/in.)
@ -40°C (-40°F)	D 256	101 J/m (1.9 ft·lbf/in.)
Thermal Properties		
Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	65 °C (149 °F)
@ 1.82 MPa (264 psi)	D 648	54 °C (129 °F)
Vicat Softening Temperature	D 1525	82 °C (180 °F)

[a] *Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.*
[b] *Unless noted otherwise, the test method is ASTM.*
[c] *Units are in SI or US customary units.*
[d] *1.52-mm (0.06-in.) thickness*

Comments

Properties reported here are based on limited testing. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

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