

Product Data Sheet

Tenite™ Butyrate 285A2R30018, Natural, Trsp

Application/Uses

- Ophthalmics
- Optical safety frames

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 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™ cellulose plastics are available in natural, clear, selected ambers, or smoke transparents and black translucents. Color concentrates are available in let-down ratios from 10:1 to 40:1. Tenite™ Cellulose Acetate Butyrate 285-18 has a plasticizer level of 18% and contains an odor mask.

Typical Properties (Preliminary)

Property ^a	Test ^b Method	Typical Value, Units ^c
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Plasticizer		18%
Specific Gravity	D 792	1.17

Mechanical Properties

Tensile Stress @ Yield	D 638	23.5 MPa (3400 psi)
Tensile Stress @ Break	D 638	30.7 MPa (4500 psi)
Elongation @ Break	D 638	50%
Flexural Modulus	D 790	1034 MPa (1.50 x 10 ⁵ psi)
Flexural Yield Strength	D 790	30.4 MPa (4400 psi)
Rockwell Hardness, R Scale	D 785	26
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	358 J/m (6.7 ft·lbf/in.)
@ -40°C (-40°F)	D 256	110 J/m (2.1 ft·lbf/in.)

Thermal Properties

Deflection Temperature ^d		
@ 1.82 MPa (264 psi)	D 648	61°C (142°F)
@ 0.455 MPa (66 psi)	D 648	75°C (167°F)

Permanence Properties		
Water Absorption, 24 h immersion	D 570	1.3%
Soluble Matter Loss	D 570	0.1%
Weight Loss on Heating [72 hours @ 80°C (176°F)]	D 707	0.9%

- ^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 Conditioned 4 hours @ 70°C (158°F)

Characteristics

Formula 285 - odor mask.

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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