Tenite[™] Butyrate 264E0096908

Cellulose Acetate Butyrate

Eastman Chemical Company

Message:

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[™] 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[™] Cellulose Acetate Butyrate 264-08 has a plasticizer level of 8%. It meets FDA requirements for certain food-contact applications when supplied in specific FDA color numbers.

| Additive Plasticizer (8%) Features Food Contact Acceptable Good Strength Good Strength Good Toughness High Clarity High Clarity High Clarity High Gloss High Clarity High Hardness Plasticized Renewable Resource Content Soft Uses Sporting Goods Toys Toys Agency Ratings FDA Food Contact, Unspecified Rating Appearance Amber Black Clear/Transparent Clear/Transparent Soft Physical Nominal Value Unit Forms Pellets Physical Q20 to 0.60 % Moding Shrinkage - Flow Q20 to 0.60 % Q20 to 0.60 % ASTM D792 Machanical Nominal Value Unit Rockwell Hardness (R-Scale, 23'C) 88 ASTM D785 Machanical Nominal Value Unit Test Method Rockwell Hardness (R-Scale, 23'C) 88 ASTM D785 Machanical Nominal Value Unit Test Method | General Information | | | | | |
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| HardnessNominal ValueUnitTest MethodRockwell Hardness (R-Scale, 23°C)88ASTM D785MechanicalNominal ValueUnitTest MethodTensile StrengthSTM D638 | Molding Shrinkage - Flow | 0.20 to 0.60 | % | ASTM D955 | | |
| Rockwell Hardness (R-Scale, 23°C) 88 ASTM D785 Mechanical Nominal Value Unit Test Method Tensile Strength STM D638 | Water Absorption (23°C, 24 hr) | 1.5 | % | ASTM D570 | | |
| MechanicalNominal ValueUnitTest MethodTensile StrengthASTM D638 | Hardness | Nominal Value | Unit | Test Method | | |
| Tensile Strength ASTM D638 | Rockwell Hardness (R-Scale, 23°C) | 88 | | ASTM D785 | | |
| | Mechanical | Nominal Value | Unit | Test Method | | |
| Yield, 23°C 37.2 MPa | Tensile Strength | | | ASTM D638 | | |
| | Yield, 23°C | 37.2 | MPa | | | |

| Break, 23°C | 47.6 | MPa | |
|--|--|----------|-------------|
| Tensile Elongation (Break, 23°C) | 50 | % | ASTM D638 |
| Flexural Modulus (23°C) | 1590 | MPa | ASTM D790 |
| Flexural Strength (Yield, 23°C) | 51.0 | MPa | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact | | | ASTM D256 |
| -40°C | 91 | J/m | |
| 23°C | 200 | J/m | |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load ¹ | | | ASTM D648 |
| 0.45 MPa, Annealed | 89.0 | °C | |
| 1.8 MPa, Annealed | 79.0 | °C | |
| Vicat Softening Temperature ² | 109 | °C | ASTM D1525 |
| CLTE - Flow (23°C) | 1.4E-4 | cm/cm/°C | ASTM D696 |
| Specific Heat (23°C) | 1260 to 1670 | J/kg/°C | DSC |
| Thermal Conductivity ³ (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) | 0.30 | % | ASTM D707 |
| NOTE | | | |
| 1. | Conditioned 4 hours at 70°C (158°F) | | |
| | Conditioned 4 hours at 70°C | | |
| 2. | (158°F) | | |

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