EASTMAN

Technical Data Sheet

Eastman TREVA™ Engineering Bioplastic GC6011 Clear

Applications

- Non-medical housings & hardware for elec
- Ophthalmics

Key Attributes

- BPA-free
- Dimensional stability
- Excellent chemical resistance
- Excellent flow
- Good clarity
- Low birefringence

Product Description

Eastman TREVA™ is a new cellulose-based engineering bioplastic that offers both high performance and reduced environmental impact. TREVA is chemically resistant, dimensionally stable and has excellent flow, BPA-free and low birefringence.

The United States Department of Agriculture's (USDA's) BioPreferred® program has Certified Eastman TREVA™ Engineering Bioplastic GC6011 with a biobased content of 45%.

Typical Properties

Property[a]	Test Method[b]	Typical Value, Units[c]
General Properties		
Specific Gravity	D 792	1.23
Mechanical Properties		
Tensile Stress @ Yield	D 638	55 MPa (7919 psi)
Tensile Stress @ Break	D 638	51 MPa (7353 psi)
Elongation @ Break	D 638	21 %
Flexural Modulus	D 790	2160 MPa (3.13 x 10^5 psi)
Rockwell Hardness, R Scale	D 785	108
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	82 J/m (1.54 ft·lbf/in.)
@ -40°C (-40°F)	D 256	66 J/m (1.22 ft·lbf/in.)
Miscellaneous Properties		
Mold Shrinkage	D 955	0.7 %
Permanence Properties		
Water Absorption, 24 h immersion	D 570	2.3 %
Target Processing Conditions		
Drying Temperature in a Desiccant Dryer		75 °C (170 °F)
Drying Time in a Desiccant Dryer		4 hours
Barrel Set Temperature[e]		235 °C (455 °F)
Mold Temperature		85 °C (185 °F)
Injection Speed		30 mm/sec (1.2 in./sec)
Maximum Barrel Residence Time		4 minutes
Thermal Properties		
Deflection Temperature[d]		
@ 0.455 MPa (66 psi)	D 648	116 °C (240 °F)
@ 1.82 MPa (264 psi)	D 648	102 °C (215 °F)

Vicat Softening Temperature[d]	D 1525	131 °C (268 °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]*Conditioned 4 hours at 70°C (158°F).*
[e]*With actual measured melt temperature not to exceed 260°C (500°F).*

Comments

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.

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