EASTMAN

Technical Data Sheet

Eastar™ DG011 Glass Filled Polyester

Key Attributes

- Contact clarity
- Ease of processing
- Excellent hydrolytic stability
- Good chemical resistance
- Good heat resistance
- Good toughness
- Increased modulus or stiffness

Product Description

Eastar™ copolyester DG011 is a glass-reinforced amorphous copolyester that provides increased modulus and strength versus unreinforced versions. Eastar™ copolyester DG011 contains 10% glass fiber as well as a mold release agent. Its most outstanding features are excellent chemical resistance, toughness, heat resistance, contact clarity, ease of processing, hydrolytic stability, and increased modulus or stiffness. These features give molded products improved modulus and strength in applications that are exposed to certain chemicals, aggressive cleaners, and disinfectants. Contact clarity is also advantageous for secondary operations such as laser welding.

Typical Properties

Property[a]	Test Method[b]	Typical Value, Units[c]
General Properties		
% Glass Fiber		10
Specific Gravity	D 792	1.3
Mold Shrinkage	D 955	0.002 mm/mm
Mechanical Properties		
Tensile Stress @ Yield	D 638	76 MPa
Tensile Stress @ Break	D 638	68 MPa
Elongation @ Yield	D 638	4 %
Elongation @ Break	D 638	5 %
Tensile Modulus	D 638	3372 MPa
Flexural Modulus	D 790	3353 MPa
Flexural Yield Strength	D 790	109 MPa
Rockwell Hardness, R Scale	D 785	114
Izod Impact Strength, Notched		
@ 23°C	D 256	44 J/m
Impact Strength, Unnotched		
@ 23°C	D 4812	627 J/m
Optical Properties		
Total Transmittance	D 1003	84 %
Haze	D 1003	48 %
Thermal Properties		
Deflection Temperature		
@ 0.455 MPa	D 648	80 °C
@ 1.82 MPa	D 648	74 °C
Typical Processing Conditions		
Drying Temperature		71 °C (160 °F)
Drying Time		6 hrs
		259-271 °C (498-520 °F)

Processing Melt Temperature	
Mold Temperature	26-38 °C (79-100 °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.*

Comments

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

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