



VYTEEN PC GF20BK

PC 20% Glassfiber Reinforced

Vyteen PCGF20BK is a black 20% glass fiber reinforced general purpose polycarbonate grade.

Features

- Good processability

Typical Applications

- Laptop computer docking
- Laser printer gears
- Toner cartridges

Typical Resin Properties^(a)

Typical Resin Properties ^(a)	ASTM Method	Typical values
Density at 23°C, g/cm ³	D792	1.32
Izod, notched, 23°C, J/m	D256	140
Izod, Unnotched, 23°C, J/m	D256	850
Tensile Strength @ break (5mm/min), MPa	D638	100
Tensile modulus (5mm/min), MPa	D638	5700
Elongation @ Break, (5mm/min), %	D638	3.7
Flexural Modulus (1.3 mm/min), MPa	D790	5600
Flexural Strength (1.3 mm/min), MPa	D790	160
HDT, @ 1.8MPa, °C	D648	140
Linear Mold Shrinkage, Flow direction (3.2mmx50mmx75mm), %	D955	0.15 – 0.25
Linear Mold Shrinkage, Transverse direction (3.2mmx50mmx75mm), %	D955	0.35 – 0.5

(a) The property values are based on a limited number of tests and, therefore, should not be construed as product specifications.

Processing Guidelines

Drying

The Vyteen PCGF20BK grade process easily but must be thoroughly dried before molding, preferably in a dehumidifying desiccant hopper dryer, operating with an air flow rate of min1.0 CFM/lb, dew point of -18°C or lower. The material should be dried at 120°C (250° F) for 2-4 hours and the humidity content of the material should be maintained below 0.02% during molding.

Molding

Vyteen PCGF20BK products have a relatively wide processing window with barrel temperature settings as following:

- Feed zone: 271-293°C (520-559°F)
- Middle zone: 282-304°C (540-579°F)
- Front zone: 293-316°C (550-590°F)
- Nozzle: 288-310°C (550-590°F)
- Melt temperature: 293-316°C (559-601°F)
- Mold temperature: 71-93°C (160-200°F)

Other Molding Parameters

- Injection Pressure: 8000-12000 psi
- Injection Speed: Fast to improve aesthetics and reduce stress
- Back Pressure: Low (25-50 psi)
- Screw Speed: 50-75 rpm



ISO 17025



Conseil canadien des normes
Standards Council of Canada

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