

云钢® GF-20

Reinforced Acetal (POM) Copolymer



云南云天化股份有限公司
YUNNAN YUNTIANHUA CO., LTD

General

Material Status	•Reinforced with ca.. 20% glass fibers		
Features	•Improved mechanical properties (stiffness, fatigue resistance, creep resistance etc.) and enhanced HDT up to 160°C, reduced thermal expansion and shrinkage.		
Uses	• The Cover of Oil Box • Gear • Accelerator Pedal	• The Cover of Radiator • Bearing • Conveyer Belt	• Valve • Cam • Impeller
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical properties	Value	Unit	Test Standard
Density	1.57	g/cm ³	ISO 1183
Water Absorption (23°C/50%RH)	0.2	%	ISO 62
Melt Mass-Flow Rate (MFR) (190°C/2.16Kg)	6	g/10min	ISO 1133
Molding Shrinkage (Parallel)	0.8	%	ISO 294

Mechanical properties	Value	Unit	Test Standard
Tensile Stress at yield	120	MPa	ISO 527-2
Tensile modulus	7000	MPa	ISO 527-2
Strain at break	2.8	%	ISO 527-2
Flexural strength	165	MPa	ISO 178
Flexural modulus	6000	MPa	ISO 178
Charpy notched impact strength	5.5	KJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Heat Deflection Temperature (1.8MPa, Unannealed)	160	°C	ISO 75

Flammability properties	Value	Unit	Test Standard
Flame Rating-UL	HB	class	UL94

Notes to users

Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.



Recommended Injection Molding Conditions

- Material Drying : 100 – 120°C, 2-4 hours

- Cylinder Temperature:

Nozzle : 180 - 210 (°C)

Front Section : 180 – 210(°C)

Center Section : 170 – 200 (°C)

Rear Section : 160 – 180 (°C)

- Melt Temperature : 180 – 210 (°C)

- Mold Temperature : 60 – 90 (°C)

(Precision parts are often molded at a mold temperature as high as 120°C)

- Pressure :

Injection Pressure: 50 – 100 MPa

Holding Pressure: 30 – 80 MPa

Back Pressure: 0 – 0.5 MPa

- Screw Rotational Speed : 50 – 120 rpm

Contact information

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