

YUNTIANHUA[®] MD-1

PTFE filled Acetal (POM) Copolymer



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

General

Material Status	• filled with ca.10% PTFE
Features	• Highly improved friction and abrasion coefficient than standard grade. Yuntianhua [®] SF-10 is more useful when used under environments of high speed and load.
Uses	• To make the abrasion resistant objects such as gears, rollers and other silders, especially suit for the environments of without oil or less oil.
Forms	• Pellets
Processing Method	• Injection Molding

Physical properties	Value	Unit	Test Standard
Density	1.6	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16Kg)	7	g/10min	ISO 1133
Water Absorption (24 hr, 23°C)	0.6	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile Stress at yield	50	MPa	ISO 527-2
Tensile modulus	2200	MPa	ISO 527-2
Strain at break	45	%	ISO 527-2
Flexural strength	45	MPa	ISO 178
Flexural modulus	2000	MPa	ISO 178
Charpy notched impact strength	5.0	KJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Heat Deflection Temperature (1.8Mpa, Unannealed)	70	°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 : 80 – 90℃, 2-4 hours

- Cylinder Temperature:

Nozzle : 180 - 200 (°C)

Front Section : 180 – 200(°C)

Center Section : 170 – 190 (°C)

Rear Section : 160 – 180 (°C)

- Melt Temperature : 180 – 200 (°C)

- Mold Temperature : 60 – 90 (°C)

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

- 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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