

YUNTIANHUA®M450

Acetal (POM) Copolymer



General

Material Status	• Superhigh-flow grad, with minimized mold deposit		
Features	• Acid Resistant	• Good Abrasion Resistance	• High Hardness
	• Bacteria Resistant	• Good Chemical Resistance	• Low Warpage
	• Solvent Resistant	• Good Dimensional Stability	• Low Friction
	• Fatigue Resistant	• Good Electrical Properties	• Super high Flow
Uses	• Lighters	• aerosol bottles	• fasteners
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical properties	Value	Unit	Test Standard
Density	1.41	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16Kg)	45	g/10min	ISO 1133
Water Absorption (24 hr, 23°C)	0.5	%	ISO 62
Mechanical properties	Value	Unit	Test Standard
Tensile Stress at yield	62	MPa	ISO 527-2
Tensile modulus	2750	MPa	ISO 527-2
Strain at break	20	%	ISO 527-2
Flexural strength	89	MPa	ISO 178
Flexural modulus	2600	MPa	ISO 178
Charpy notched impact strength	3.5	KJ/m ²	ISO 179/1eA
Thermal properties	Value	Unit	Test Standard
Heat Deflection Temperature 1.8Mpa, Unannealed	98	°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 value.

Recommended Injection Molding Conditions

• Material Drying : 80 – 90°C, 3-4 hours

• Cylinder Temperature:

Nozzle : 180 - 210 (°C)

Front Section : 190 – 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 made at a mold 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

Acquired Certifications of Yuntianhua POM

• RoHS test

• PFOS test

• Halogen element test

• SVHC test

• DMF test

• EN1186btest

• DBT&TBT test

• EN71-3 test

• Certification W18 test

• Certification FDA

• Certification UL

• Certification NSF

For details, please contact Yuntianhua technicians.

Contact information

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