

YUNTIANHUA®M25

Acetal (POM) Copolymer



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

General

Material Status	• High-impact, high-elongation grade, with increased molecular weight		
Features	• Acid Resistant	• Good Abrasion Resistance	• High Hardness
	• Bacteria Resistant	• Good Chemical Resistance	• High Stiffness
	• Solvent Resistant	• Good Dimensional Stability	• Low Friction
	• Fatigue Resistant	• Good Electrical Properties	• Low Warpage
Uses	• Extruded rods	• Extruded sheets	• roller conveyor parts
Forms	• Pellets		
Processing Method	• Injection Molding and Extrusion		

Physical properties

	Value	Unit	Test Standard
Density	1.41	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16Kg)	2.5	g/10min	ISO 1133
Water Absorption (24 hr, 23°C)	0.12	%	ISO 62

Mechanical properties

	Value	Unit	Test Standard
Tensile Stress at yield	60	MPa	ISO 527
Tensile modulus	2400	MPa	ISO 527
Strain at break	40	%	ISO 527
Flexural strength	81	MPa	ISO 178
Flexural modulus	2350	MPa	ISO 178
Charpy notched impact strength	7.0	KJ/m ²	ISO 179/1eA

Thermal properties

	Value	Unit	Test Standard
Heat Deflection Temperature 1.8Mpa, Unannealed	88	°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

Recommended Extruded Conditions

- Standard extruders with grooved feed zone and short compression screws (minimum 25 D) will fit.

Melt temperature : 180 - 190°C

Acquired Certifications of Yuntianhua POM

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|--------------------|---------------------|------------------------|
| • RoHS test | • PFOS test | • Halogen element test |
| • SVHC test | • DMF test | • Migration test |
| • DBT&TBT test | • EN71-3 test | |
| • Certification UL | • Certification FDA | |

For details, please contact Yuntianhua technicians.

Contact information

- **Production**

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- **Technical Support**

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