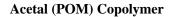
YUNTIANHUA® M90





| General | | | | |
|-------------------|--|--|----------------------------------|--|
| Material Status | Standard-flow grade, with minimized mold deposit | | | |
| Features | Acid Resistant | • Good Abrasion Resistance | • High Hardness | |
| | Bacteria Resistant | • Good Chemical Resistance | • High Stiffness | |
| | • Base Resistant | • Good Dimensional Stability | Low Friction | |
| | • Copolymer | • Good Electrical Properties | • Low Warpage | |
| | • Fatigue Resistant | • Goo <mark>d Flo</mark> w | • Solvent Resistant | |
| Uses | • Automotive Electonics | • Fittings | • Thin-walled Parts | |
| | • Automotive Exterior Parts | • Gears | • Valves/Valve Parts | |
| | • Aumomotive Under the Hood | • pining | • Wheels | |
| Forms | • Pellets | and the same of th | | |
| Processing Method | • Injection Molding and Extrusion | on | | |

| Physical properties | Value | Unit | Test Standard |
|--|-------|-------------------|---------------|
| Density | 1.41 | g/cm ³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) (190°C/2.16Kg) | 9 | g/10min | ISO 1133 |
| Water Absorption (24 hr, 23°C) | 0.6 | % | ISO 62 |
| Mechanical properties | Value | Unit | Test Standard |
| Tensile Stress at yield | 60 | MPa | ISO 527-2 |
| Tensile modulus | 2600 | MPa | ISO 527-2 |
| Strain at break | 35 | % | ISO 527-2 |
| Flexural strength | 88 | MPa | ISO 178 |
| Flexural modulus | 2500 | MPa | ISO 178 |
| Charpy notched impact strength | 6 | KJ/m ² | ISO 179/1eA |
| Thermal properties | Value | Unit | Test Standard |
| Heat Deflection Temperature 1.8Mpa, Unannealed | 95 | $^{\circ}$ C | ISO 75 |
| Flammability properties Q | Value | Unit | Test Standard |
| Flame Rating-UL | НВ | 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 materal. These values alone do not represent a sufficient basis for any part design and are not intended for use in establing 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°C, 3-4 hours

• Cylinder Temperature:

Nozzle: 180 - 210 (°C)

Front Section : $190 - 210 \, (^{\circ}\mathbb{C})$ Center Section : $170 - 200 \, (^{\circ}\mathbb{C})$

Rear Section : 160 − 180 (°C)

• Melt Temperature : 180 – 210 (°C)

• Mold Temperature : 60 - 90 (°C)

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

• Pressure:

Injection Pressure 50 - 100 MpaHolding Pressure 30 - 80 MpaBack 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℃

Acquried Certifications of Yuntianhua POM

• RoHS test

• Certification FDA • Certification UL

• Certification W18 test • EN71-3 test

For details, please contact Yuntianhua technicians.