

PP

PP Y40

POLYPROPYLENE HOMOPOLYMER (PP)

Y40 is a high-flow polypropylene homopolymer made by a controlled-rheology process that narrows the molecular weight distribution for uniform, stable melt behavior. At a nominal melt flow rate of 40 g/10 min (230 °C / 2.16 kg), the resin combines fast mold-filling for high-speed injection molding with the high stiffness and crystallinity typical of homopolymer chemistry.

Typical Application

- High-flow injection molding of rigid, thin-wall parts and large-cavity tooling
- General injection-molded articles such as food containers, housewares, and packaging components

Product Characteristics

- High melt flow rate enables fast mold filling and can shorten molding cycle times by more than 20% compared with standard-flow homopolymer
- Narrow molecular weight distribution delivers uniform physical and mechanical properties from lot to lot
- Low ash and low dust content with a controlled fish-eye count support consistent, defect-free processing
- Good color uniformity, with a yellowness index below 3, minimizes shade variation during processing

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate (230°C/2.16kg)	GB/T 3682.1-2018	40 (±5)	g/10 min
Density		0.90-0.91	g/cm ³
Tensile Yield Stress	GB/T 1040.2-2006	≥29.0	MPa
Flexural Modulus		>850	MPa
Yellowness Index		<3	-
Fish Eye Count (>0.8 mm)	GB/T 6595-1986	<10	per 1520 cm ²
Fish Eye Count (>0.4 mm)	GB/T 6595-1986	<40	per 1520 cm ²
Dust Content	GB/T 9341-2008	≤0.03	% (w/w)

Processing Guidelines

No pre-drying is required under proper storage; if moisture has been absorbed, dry at 80°C for 2-3 hours before processing. Maintain melt temperature between 220-275°C and avoid exceeding 275°C to prevent degradation. A mold temperature around 50°C is recommended to control crystallization during injection molding.

1. The nominal properties reported herein are typical of the product and do not reflect normal testing variance; they should not be used for specification purposes.
2. Typical values per the producer's published family data; grade-specific certificate of analysis supplied per lot at order.
3. Density is reported as the typical range for polypropylene homopolymer chemistry rather than a grade-specific certified value; fish-eye, dust, and MFR values are per GB/T national standard test methods (broadly equivalent to ASTM D1238 / ISO 1133 for melt flow rate).