

PP

PP K8003

POLYPROPYLENE IMPACT COPOLYMER (PP)

This resin is a non-toxic, odorless, tasteless, opalescent polypropylene impact copolymer with high crystallinity, a melting point of approximately 164-170°C, a density in the range of 0.90-0.91 g/cm³, and a molecular weight of roughly 80,000-150,000. It is one of the lightest plastics available and is highly resistant to water absorption (24-hour water absorption of only 0.01%). Produced via a licensed gas-phase polypropylene process, the grade offers excellent stiffness together with ultra-high impact performance and good heat resistance, making it suitable as a high-impact compounding base resin.

Typical Application

- Injection moulding of toys
- Injection moulding of household appliances
- Battery cases
- Automobile parts
- Oil tanks
- Kitchenware and travel bags

Product Characteristics

- Excellent stiffness with ultra-high impact performance
- Good heat deformation resistance
- Very low water absorption
- Low ash content

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Mass-Flow Rate (230°C/2.16kg)	GB/T 3682	2.70	g/10 min
Tensile Strength at Yield	GB/T 1040	22	MPa
Flexural Modulus		1300	MPa
Charpy Notched Impact Strength (23°C)	GB/T 1043	60	kJ/m ²
Charpy Notched Impact Strength (-20°C)	GB/T 1043	6	kJ/m ²
Heat Deflection Temperature (0.45 MPa load)	GB/T 1634	79	°C
Rockwell Hardness (R-scale)	GB/T 3398	82.8	
Ash Content	GB/T 9345 (Method A)	0.0189	%

1. Melt flow, tensile yield, notched impact, Rockwell hardness, ash content, and HDT above are actual lot test results from a per-grade certificate of analysis; the producer's standard TDS separately publishes minimum guaranteed values for this code (melt flow 2.5 ± 0.3 g/10min, tensile yield ≥ 22.0 MPa, flexural modulus ≥ 900 MPa, 23°C notched impact ≥ 46 kJ/m², HDT $\geq 80^\circ\text{C}$), consistent with the figures reported here. Flexural modulus is reported per the producer's published family brochure typical value (1300 MPa); the lot-test certificate for this same code showed a lower reading (1012 MPa), still within the ≥ 900 MPa guaranteed minimum.

2. 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.