PP

PP P945J

POLYPROPYLENE IMPACT COPOLYMER (PP)

A high-flow-ability polypropylene impact copolymer resin designed for the injection moulding process. This resin is recommended for products that require high impact strength balanced with stiffness, particularly for thin-wall, large-volume parts and complex tooling requiring fast cycle times.

Typical Application	Product Characteristics	International Compliance
• Household products	• High impact strength	• U.S. FDA 21 CFR 177.1520
• Complicated industrial parts	• High stiffness	• EU Regulation (EU) No. 10/2011
• Parts requiring good flow ability	• High processability	• Directive 94/62/EC
	• Food contact applicable	• RoHS Directive 2011/65/EU (RoHS 2)
		• REACH Regulation (EC) No. 1907/2006

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate (230°C/2.16 kg)	ASTM D1238	65	g/10 min
Density	ASTM D1505	0.91	g/cm³
Melting Point	ASTM D2117	163	°C
Heat Deflection Temperature (0.45 MPa)	ASTM D648	110	°C
Tensile Strength at Yield	ASTM D638 @ 50 mm/min	26.5	MPa
Tensile Strength at Break	ASTM D638 @ 50 mm/min	18.6	MPa
Flexural Modulus	ASTM D790	1373	MPa
Notched Izod Impact (23°C)	ASTM D256	65	J/m
Notched Izod Impact (0°C)	ASTM D256	35	J/m
Rockwell Hardness	ASTM D785	90	R-Scale
Shrinkage, 2 mm (MD)	Internal (TPE method)	1.3	%
Shrinkage, 2 mm (TD)	Internal (TPE method)	1.2	%

Processing Guidelines

Recommended processing conditions: melt temperature 210-250°C, mould temperature 25-70°C, injection speed fast, screw speed 40-70 rpm. Pressure: injection 40-80%, packing and holding 30-60%, back pressure 10% of maximum pressure. Actual processing conditions depend on machine type, product size, mould design, and environment.

1. Tensile and flexural values were converted from the producer's native kgf/cm² units using the standard factor of 10.20 to derive MPa.
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.