PP

PP P840J

POLYPROPYLENE IMPACT COPOLYMER (PP)

A high-flow polypropylene impact copolymer resin designed for the injection moulding process. This resin is recommended for products that require good stiffness and impact balance combined with high flowability for fast-cycle, large-cavity moulding.

Typical Application	Product Characteristics	International Compliance
• Automotive parts	• Good impact strength	• U.S. FDA 21 CFR 177.1520
• Electrical appliance parts	• Good stiffness	• UL Yellow Card E202743
• Complicated industrial parts	• Good processability	• RoHS Directive 2011/65/EU (RoHS 2)
• Parts requiring good flow ability	• Food contact applicable	• REACH Regulation (EC) No. 1907/2006

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate (230°C/2.16 kg)	ASTM D1238	43	g/10 min
Density	ASTM D1505	0.910	g/cm³
Melting Point	ASTM D2117	163	°C
Vicat Softening Point	ASTM D1525	150	°C
Heat Deflection Temperature (0.45 MPa)	ASTM D648	110	°C
Tensile Strength at Yield	ASTM D638 @ 50 mm/min	28.4	MPa
Tensile Strength at Break	ASTM D638 @ 50 mm/min	19.6	MPa
Flexural Modulus	ASTM D790	1226	MPa
Notched Izod Impact (23°C)	ASTM D256	70	J/m
Notched Izod Impact (0°C)	ASTM D256	39	J/m
Notched Izod Impact (-20°C)	ASTM D256	30	J/m
Rockwell Hardness	ASTM D785	75	R-Scale
Shrinkage, 2 mm (MD)	Internal (TPE method)	1.4	%
Shrinkage, 2 mm (TD)	Internal (TPE method)	1.4	%
Flammability	UL-94	HB	-

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. An earlier (2013) revision of this grade's datasheet reported notched Izod impact in kgf·cm/cm rather than J/m; the values above are taken from the current (2021) revision, which reports directly in J/m and is consistent with independently verified impact data for this grade.
3. 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.