

RESIN SELECTION GUIDE

Resin Generic Name (symbol)	Some brand names	Mechanical Properties			Moldability Characteristics						Relative Cost
		Strength	Impact Resistance	High Temp. Strength	Warp and Dimensional Accuracy, Molded	Fills Small features	Voids in thick sections	Sink in Thick Sections	Flash	High Temp. hard on Mold & Ejectors	
Acetal (POM)	Delrin, Celcon	Medium	Medium	Medium-Low	Fair	Fair	Poor	Good	Good	Fair	Medium
Acrylic (PMMA)	Plexiglass, Acrylite	Medium	Low	Low	Good	Fair	Excellent	Good	Good	Good	Medium
Acrylonitrile Butadiene Styrene (ABS)	Lustran, Cycolac	Medium-Low	High	Low	Good	Fair	Good	Fair	Good	Good	Low
High Density Polyethylene (HDPE)	Dow HDPE, Chevron HDPE	Low	High	Low	Fair	Excellent	Unknown	Poor	Poor	Good	Low
Liquid Crystal Polymer (LCP)	Vectra, Zenite	High	High	High	Excellent	Excellent	Fair	Fair	Good	Fair	High
Low Density Polyethylene (LDPE)	Dow LDPE, Marlex	Low	High	Low	Fair	Good	Poor	Poor	Poor	Good	Low
Nylon 6/6 (PA66)	Zytel, Ultramid	Medium	High	Low	Fair	Excellent	Good	Fair	Poor	Fair	Medium
Nylon 6/6, glass filled	Zytel, Ultramid	High	Medium	High	Poor	Good	Excellent	Good	Fair	Fair	Medium
Polybutylene Terephthalate (PBT)	Valox, Crastin, Ultradur	Medium	High	Low	Fair	Fair	Unknown	Fair	Fair	Good	Medium High
Polycarbonate (PC)	Lexan, Makrolon	Medium	High	Medium High	Good	Fair	Fair to Good	Fair	Good	Good	Medium High
Polycarbonate / ABS (PC/ABS)	Cycloy, Bayblend	Medium	High	Medium	Good-Excellent	Fair	Good	Fair	Good	Good	Medium
Polyphenylene Ether (PPE)	Noryl, Hiloy	High	Medium-High	Medium	Good	Good	Fair	Fair	Fair	Good	Medium High
Polyphenylene Sulfide (PPS)	Ryton, Luvotech	Medium-High	High	High	Excellent	Fair	Good	Good	Fair	Poor	High
Polypropylene, Homopolymer & Copolymer (PP&COPP)	Maxxam, Profax	Low	High	Low	Fair	Excellent	Poor	Poor	Poor	Good	Low
Polystyrene (HIPS)	Styron, Avantra, Polstyrol	Medium-Low	Low	Low	Good	Good	Unknown	Fair	Fair	Good	Low
Polysulfone (PSU)	Udel, Ultrason	High	Medium	High	Good	Good	Fair	Fair	Good	Fair	High
Thermoplastic Elastomer (TPE)	Isoplast, Santoprene	Low	High	Low	Poor	Excellent	Excellent	Good	Poor	Excellent	Medium-Low

Notes:

This is a general listing, as there are many other resins not listed.