



PLASTIC RESIN CHART

Material name	Abbreviation	Trade names	Description	Applications
Acetal	POM	Celcon, Delrin, Hostaform, Lucel	Strong, rigid, excellent fatigue resistance, excellent creep resistance, chemical resistance, moisture resistance, naturally opaque white, low/medium cost	Bearings, cams, gears, handles, plumbing components, rollers, rotors, slide guides, valves
Acrylic	PMMA	Diakon, Oroglas, Lucite, Plexiglas	Rigid, brittle, scratch resistant, transparent, optical clarity, low/medium cost	Display stands, knobs, lenses, light housings, panels, reflectors, signs, shelves, trays
Acrylonitrile Butadiene Styrene	ABS	Cyclac, Magnum, Novodur, Terluran	Strong, flexible, low mold shrinkage (tight tolerances), chemical resistance, electroplating capability, naturally opaque, low/medium cost	Automotive (consoles, panels, trim, vents), boxes, gauges, housings, inhalors, toys
Cellulose Acetate	CA	Dexel, Cellidor, Setilithe	Tough, transparent, high cost	Handles, eyeglass frames
Polyamide 6 (Nylon)	PA6	Akulon, Ultramid, Grilon	High strength, fatigue resistance, chemical resistance, low creep, low friction, almost opaque/white, medium/high cost	Bearings, bushings, gears, rollers, wheels
Polyamide 6/6 (Nylon)	PA6/6	Kopa, Zytel, Radilon	High strength, fatigue resistance, chemical resistance, low creep, low friction, almost opaque/white, medium/high cost	Handles, levers, small housings, zip ties
Polyamide 11+12 (Nylon)	PA11+12	Rilsan, Grilamid	High strength, fatigue resistance, chemical resistance, low creep, low friction, almost opaque/white, medium/high cost	Air filters, eyeglass frames, safety masks
Polycarbonate	PC	Calibre, Lexan, Makrolon	Very tough, temperature resistance, dimensional stability, transparent, high cost	Automotive (panels, lenses, consoles), bottles, containers, housings, light covers, reflectors, safety helmets and shields
Polyester-Thermoplastic	PBT, PET	Celanex, Crastin, Lupox, Rynite, Valox	Rigid, heat resistance, chemical resistance, medium/high cost	Automotive (filters, handles, pumps), bearings, cams, electrical components (connectors, sensors), gears, housings, rollers, switches, valves
Polyether Sulphone	PES	Victrix, Udel	Tough, very high chemical resistance, clear, very high cost	Valves
Polyetheretherketone	PEEK		Strong, thermal stability, chemical resistance, abrasion resistance, low moisture absorption	Aircraft components, electrical connectors, pump impellers, seals
Polyetherimide	PEI	Ultem	Heat resistance, flame resistance, transparent (amber color)	Electrical components (connectors, boards, switches), covers, shields, surgical tools
Polyethylene - Low Density	LDPE	Alkathene, Escorene, Novex	Lightweight, tough and flexible, excellent chemical resistance, natural waxy appearance, low cost	Kitchenware, housings, covers, and containers
Polyethylene - High Density	HDPE	Eraclene, Hostalen, Stamylan	Tough and stiff, excellent chemical resistance, natural waxy appearance, low cost	Chair seats, housings, covers, and containers
Polyphenylene Oxide	PPO	Noryl, Thermocomp, Vamporan	Tough, heat resistance, flame resistance, dimensional stability, low water absorption, electroplating capability, high cost	Automotive (housings, panels), electrical components, housings, plumbing components
Polyphenylene Sulphide	PPS	Ryton, Fortron	Very high strength, heat resistance, brown, very high cost	Bearings, covers, fuel system components, guides, switches, and shields
Polypropylene	PP	Novolen, Appryl, Escorene	Lightweight, heat resistance, high chemical resistance, scratch resistance, natural waxy appearance, tough and stiff, low cost	Automotive (bumpers, covers, trim), bottles, caps, crates, handles, housings
Polystyrene - General purpose	GPPS	Lacqrene, Styron, Solarene	Brittle, transparent, low cost	Cosmetics packaging, pens
Polystyrene - High impact	HIPS	Polystyrol, Kostil, Polystar	Impact strength, rigidity, toughness, dimensional stability, naturally translucent, low cost	Electronic housings, food containers, toys
Polyvinyl Chloride - Plasticised	PVC	Welvic, Varlan	Tough, flexible, flame resistance, transparent or opaque, low cost	Electrical insulation, housewares, medical tubing, shoe soles, toys
Polyvinyl Chloride - Rigid	UPVC	Polycol, Trosiplast	Tough, flexible, flame resistance, transparent or opaque, low cost	Outdoor applications (drains, fittings, gutters)
Styrene Acrylonitrile	SAN	Luran, Arpylene, Starex	Stiff, brittle, chemical resistance, heat resistance, hydrolytically stable, transparent, low cost	Housewares, knobs, syringes
Thermoplastic Elastomer/Rubber	TPE/R	Hytrel, Santoprene, Sarlink	Tough, flexible, high cost	Bushings, electrical components, seals, washers