

Abbreviation	Full Name	Brand Names	Properties	Applications
ABS	Acrylonitrile Butadiene Styrene	Cycolac, Magnum, Novodur	Tough, opaque, rigid, hard, high gloss	Automotive, office machines, domestic appliances, refrigeration, pipe fittings
ASA	Acrylonitrile Styrene Acrylonitrile	Luran S, Geloy	Rigid, transparent, tougher alternative to Styrene	Automotive, telephones, traffic signs, electric fan components, wash basins
BDS	Butadiene Styrene Block Copolymer (See also SBC/SBS)	Kibiton	Tough, crystal clear	Medical products, drawing instruments
EVA	Ethylene Vinyl Acetate Copolymer	Evatane, Escorene	Tough, semi-opaque, flexible, good low temperature properties	Food packaging, surgical products, ice cube trays, bicycle saddles
HDPE (PE-HD)	High Density Polyethylene	Rigidex, Lutene	Tough, semi-rigid, translucent, excellent weatherability/chemical resistance	Containers, bottle crates, food storage boxes, housewares, dustbins, pipe fittings
HIPS	High Impact Polystyrene	Lacqrene, Polystyrol, Styron A-Tech	Rigid, hard, translucent	Household appliances, toys, disposable cups, toilet seats
LCP	Liquid Crystal Polymer	Vectra, Xydar	High stiffness, excellent stability at high temperatures,	Precision parts, stainless steel and ceramic replacement, electrical connectors, surgical instruments, dental tools
LDPE (PE-LD)	Low Density Polyethylene	Lupolen, Escorene, Hostalen	Flexible, translucent, durable, good weatherability/low temperature performance, excellent chemical resistance	Lids and closures, containers, bins, laundry baskets
LLDPE	Linear Low Density Polyethylene	Dowlex, Escorene, Innovex	Stronger and tougher than LDPE, better mechanical properties at low and high temperatures	Closures, screw caps, cold room containers, high quality housewares, toys
MDPE (PE-MD)	Medium Density Polyethylene	Marlex, Rigidex	Fits midway between High and Low Density Polyethylene	Containers, closures, pipe fittings
PA	Polyamide (Nylon)			
PA6	Polyamide 6 (Nylon 6)	Akulon, Ultramid, Technyl	Rigid, tough, translucent, resistance to oils, good dielectric resistance, hard wearing	Gears, bearings, bushes
PA11	Polyamide 11 (Nylon 11)	Rilsan, Lubricomp, Thermocomp, Grilamid	As for Nylon 6 but better performance over wider range of temperatures	Cable ties, aircraft battery cases, sports equipment
PA12	Polyamide 12 (Nylon 12)			
PA46	Polyamide 46 (Nylon 46)	Stanyl		
PA66	Polyamide 66 (Nylon 66)	Zytel, Maranyl, Akulon	Higher impact strength and better low temperature properties than Nylon 6	Automotive fans, door handles and filters, kitchen appliance housings
PAA6	Polyarylamide	Ixef	High rigidity, excellent strength, high temperature performance comparable to metals	Automotive under bonnet components and door handles, electric motor housings, furniture
PBT	Polybutylene Terephthalate	Arnite, Valox, Celanex	Rigid, extremely tough, clear, wide operating temperature range	Automotive windscreen wiper arms and door handles, electronic parts, household appliances
PC	Polycarbonate	Calibre, Makrolon, Lexan	Rigid, tough, excellent impact resistance, good weatherability and dimensional stability	Medical, glazing, lighting, CDs/DVDs, spectacles, safety helmets, automotive light covers and clear roof panels
PC/ABS	Polycarbonate/ABS blend	Bayblend, Pulse	Combination of PC and ABS properties	Similar applications to ABS but where greater toughness required
PE	Polyethylene	Rigidex, Lupolen		
PEEK	Polyether Etherketone	Victrex	Outstanding stability at wide temperature range, high cost, specialist	Chemotherapy devices, surgical tools, microwave grills
PEI	Polyetherimide	Ultem	High strength, excellent flame and heat resistance	Medical devices, electrical insulators, pharmaceutical process equipment
PET	Polyethylene Terephthalate	Arnite A, Impet, Valox	Tough, good impact strength, clear, good high temperature performance	Blow moulded bottles
PES	Polyethersulphone	Radel A, Victrex	Tough, wide operating temperature, self-extinguishing	Microwave grills and dishes, medical respirators, dental reamers

PMMA	Polymethyl Methacrylate (Acrylic)	Diakon, Plexiglas	Hard, rigid, crystal clear, good weatherability	Lenses. Lighting covers (indoor and outdoor), automotive rear light lenses
POM	Polyoxymethylene (Acetal)(Polyformaldehyde)	Delrin, Hostaform, Lupital	Rigid, very tough, translucent, good dimensional stability and electrical properties	Gears, bearings, electric kettles, plumbing fittings, valve and pump housings, automotive fuel systems
POM-H	Acetal Homopolymer	Delrin, Hostaform, Lupital	Higher rigidity and resistance to fatigue than copolymers	
POM-K	Acetal Copolymer	Delrin, Hostaform, Lupital	Better resistance to hot water and alkalis and better long term temperature properties than homopolymers	
PP	Polypropylene	Novolen, Capilene, Innovene	Semi rigid, translucent, excellent chemical resistance, good recyclability	Crates and bins, housewares, washing machine drums, plumbing fittings, kettle bodies, automotive bumpers and dashboards
PPE	Polyphenylene Ether	Noryl	See PPO	
PPO	Polyphenylene Oxide (usually modified – PPO-M)	Noryl, Luranyl	Rigid, tough, opaque, wide operating temperature, excellent dielectric properties, may be self extinguishing	Washing machine, dishwasher and pump components, electrical and automotive components
PPS	Polyphenylene Sulphide	Fortron, Ryton	Rigid, tough, high temperature resistance (continuous use up to 240C), good mechanical and insulation properties	Often used as aluminium replacement, connectors, terminal blocks, sockets, coil formers, relay components, automotive ignition parts
PPVC (PVC-P)	Plasticised Polyvinyl Chloride	Solvic, Vinnol	Flexible, strong, high abrasion resistance, good weathering properties	Footwear, garden hoses, electric cable insulation
PS (GPPS)	Polystyrene	Lacqrene, Polystyrol	Rigid, high gloss and transparency, brittle	Toys, disposable tumblers, containers
PSU	Polysulphone	Udel	Tough, wide operating temperature, self-extinguishing, amber colour,	Microwave grills and dishes, dental reamers, dialysis equipment, stainless steel and glass replacement for milk collection equipment
PVC	Polyvinyl Chloride			
PVDF	Polyvinylidene Fluoride	Kynar, Solef	Strong, tough, excellent chemical and heat resistance and UV stability, translucent milky white	Valves, pumps and bearings, mainly in the chemical process industries
SAN	Styrene Acrylonitrile Copolymer	Tyrl, Lustran	Rigid, tough, transparent, resistant to oils and greases	Automotive rear lamp covers and reflectors, refrigerator doors and trays, washing machine trims and windows, quality kitchen utensils
UPVC (PVC-U)	Unplasticised Polyvinyl Chloride	Corvic, Geon	Rigid, tough, good weatherability, flame retardant, usually clear	Replacement windows and doors, pipes and fittings, rainwater goods and bottles
PP-EPDM	Rubber Modified/Reinforced Polypropylene	Alfater XL, Keltan	Tough, flexible, off-white	Automotive bumpers and door protection strips
SBC/SBS	Styrene Butadiene Styrene Block Copolymer	Styrolux	Tough, less brittle than GPPS, crystal clear	Centrifuge tubes, medical bottles and mouth tubes, pens and drawing instruments
TPE	Thermoplastic Elastomer (Rubber)		Flexible, good low temperature properties	Rubber replacement, automotive gaiters, seals and gaskets. Used for overmoulding to provide 'soft-touch'.
TP-EE	Thermoplastic Elastomer – Ether Ester	Arnitel, Hytrel		
TPR	Thermoplastic Rubber (Elastomer)			
TPV	Thermoplastic Elastomer or Rubber – Crosslinked	Santoprene, Lamod		
TPU	Thermoplastic Polyurethane	Elastolan, Estane	Range from hard and rigid to soft and flexible, better abrasion and tear resistance than rubber, excellent weatherability and UV resistance	Bellows, diaphragms, gaskets and seals, machinery mounts, shoe soles and heels. Overmoulding, especially in automotive interiors