

## Materials List

# 26 Most Common Plastic Injection Moulding Materials

At HLH Rapid, **we can work with thousands of injection moulding resin materials**, many of which are not listed here. Additional materials are available on request. Simply specify the required material grade during the quotation stage or contact us at [info@hlhrapid.com](mailto:info@hlhrapid.com).

### Special Properties

Fire resistant / flame retardant (FR), UV resistant, food grade, glass filled, carbon filled, medical grade, impact strength, high temperature, etc.

No.	Material	Reference	Typical Characteristics
1	ABS	Acrylonitrile Butadiene Styrene	Tough, impact-resistant, easy to mould
2	ASA	Acrylonitrile Styrene Acrylate	Excellent resistance to UV, light and heat
3	GPPS	General Purpose Polystyrene	Transparent, tough and rigid, moisture resistant
4	HDPE	High-Density Polyethylene	Low cost, chemical-resistant, low moisture absorption
5	HIPS	High Impact Polystyrene	Improved impact resistance over GPPS, easy to mould
6	LDPE	Low-Density Polyethylene	Flexible, good chemical resistance, cost effective
7	LCP	Liquid Crystal Polymer	High flowability, inherently flame retardant, high strength
8	PE	Polyethylene	General family including HDPE and LDPE
9	PA	Polyamide (Nylon 6, 66, 610, 612)	Strong, wear-resistant, good mechanical properties
10	PBT	Polybutylene Terephthalate	Good tensile strength, impact resistance and electrical properties
11	PC	Polycarbonate	High impact strength, transparent
12	PEEK	Polyether Ether Ketone	High-performance engineering plastic, excellent temperature resistance
13	PEI	Polyetherimide	Excellent temperature resistance and flame retardance
14	PET	Polyethylene Terephthalate	Clear, strong, lightweight
15	PMMA	Poly(methyl methacrylate) (Acrylic)	Transparent, excellent optical clarity, good UV resistance
16	POM	Polyoxymethylene (Acetal)	Metal-like strength, excellent lubricity
17	PP	Polypropylene	Lightweight, chemical-resistant, widely used
18	PPA	Polyphthalamide	High-temperature engineering nylon

19	PPO / PPE	Polyphenylene Oxide / Polyphenylene Ether	High heat resistance, superior electrical insulation
20	PPS	Polyphenylene Sulfide	High-temperature and chemical resistance
21	PPSU	Polyphenylsulfone	High toughness, hydrolysis resistance
22	PVC	Polyvinyl Chloride	Flame retardant, does not absorb moisture
23	PVDF	Polyvinylidene Fluoride	Good chemical resistance, flame retardant, high strength
24	TPE	Thermoplastic Elastomer	Rubber-like, flexible, high impact strength
25	TPU	Thermoplastic Polyurethane	Excellent abrasion resistance, elasticity and chemical resistance
26	SAN	Styrene Acrylonitrile	High clarity, stiffness and chemical resistance.

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