KNOWLEDGE CENTRE

# Top 30 Polymers: Features

| POLYMER | FEATURES | | | | |
|---|---|---|---|---|---|
| **ABS** | Good Impact Resistance | High Rigidity | High Gloss | Good Dimensional Stability | East to Paint |
| **Polypropylene (PP)** | Good Chemical Resistance | Low Density | Cost Effective | High Fatigue Resistance | Good For Living Hinges |
| **Polyethylene (PE)** | Good Impact Resistance | Excellent Flexibility | Low Cost | Good Chemical Resistance | Moisture Resistant |
| **Nylon (PA6)** | Good Wear Resistance | High Toughness | Self Lubricating | High Fatigue Resistance | Good Impact Strength |
| **Polycarbonate (PC)** | High Temperature Resistance | High Transparency | Excellent Toughness | Good Dimensional Stability | Good Electrical Insulation |
| **POM (Acetal)** | Good Wear Resistance | High Stiffness | Low Friction | High Dimensional Stability | Good Chemical Resistance |
| **Polyetheretherketone (PEEK)** | Good Chemical Resistance | Biocompatible | Low Smoke Emission | High Temperature Resistance | Excellent Mechanical Properties |
| **Polyethylene Terephthalate (PET)** | Good Chemical Resistance | High Strength | Recyclable | Low Moisture Absorption | Transparent |
| **Polystyrene (PS)** | Good Dimensional Stability | Low Cost | East to Mould | Good Rigidity | High Clarity |
| **Polymethyl Methacrylate (PMMA)** | High Transparency | UV Resistance | Scratch Resistance | Easy to Mould | Good Optical Properties |
| **Thermoplastic Polyurethane (TPU)** | Good Abrasion Resistance | Biocompatible | High Flexibility | Good Weather Resistance | Resistant to Oils |
| **High-Density Polyethylene (HDPE)** | Good Impact Resistance | Lightweight | Good For Large Parts | Low Moisture Absorption | Excellent Chemical Resistance |
| **Low-Density Polyethylene (LDPE)** | High Clarity | Lightweight | High Flexibility | Low Moisture Absorption | Good Chemical Resistance |
| **Polyphenylene Sulfide (PPS)** | Dimensional Stability | High Strength | Flame Resistance | Good Chemical Resistance | High Temperature Resistance |
| **Polyamide-imide (PAI)** | Good Wear Resistance | High Strength | Dimensional Stability | Chemical Resistance | High Temperature Resistance |
| **Polyvinyl Chloride (PVC)** | Good Tensile Strength | Flame Resistance | Durable | Good Chemical Resistance | Weather Resistance |
| **Polysulfone (PSU)** | High Temperature Resistance | High Strength | Dimensional Stability | Good Chemical Resistance | Biocompatible |
| **Liquid Crystal Polymer (LCP)** | High Temperature Resistance | High Strength | Dimensional Stability | Low Moisture Absorption | Good Flowability |
| **Polybutylene Terephthalate (PBT)** | Good Mechanical Strength | High Rigidity | Dimensional Stability | Chemical Resistance | Good Electrical Properties |
| **Polyketone (PK)** | Good Mechanical Properties | Chemical Resistance | Low Friction | High Impact Strength | Excellent Wear Resistance |
| **Polyphenylene Oxide (PPO)** | Good Rigidity | Easy to Mould | Dimensional Stability | Good Chemical Resistance | High Impact Strength |
| **Thermoplastic Elastomer (TPE)** | High Flexibility | Rubber-Like Feel | Good UV Resistance | Chemical Resistance | Good Elasticity |
| **Polycarbonate + ABS (PC-ABS)** | Good Impact Resistance | High Heat Resistance | Dimensional Stability | Good Chemical Resistance | High Strength |
| **Ethylene Vinyl Acetate (EVA)** | Good Weather Resistance | Good Flexibility | Lightweight | Excellent Transparency | Soft Feel |
| **Polyetherimide (PEI)** | High Heat Resistance | High Rigidity | Dimensional Stability | Good Chemical Resistance | Flame Retardant |
| **Nylon 12** | Good Fatigue Resistance | High Flexibility | Lightweight | Good Chemical Resistance | Low Moisture Absorption |
| **Polyvinylidene Fluoride (PVDF)** | Good Chemical Resistance | High Rigidity | High Strength | Flame Resistance | God Electrical Insulation |
| **Polyether Sulfone (PES)** | Good Chemical Resistance | Dimensional Stability | High Strength | Biocompatible | High Temperature Resistance |
| **Polyethylene Naphthalate (PEN)** | Good Chemical Resistance | High Strength | Transparent | Recyclable | Good Rigidity |
| **Polyamide 11 (PA 11)** | Good Chemical Resistance | High Flexibility | Lightweight | Biocompatible | Low Moisture Absorption |

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