

5 UNUSUAL BUT EXCEPTIONAL PLASTICS YOU SHOULD KNOW ABOUT

From everyday commodity plastics to high-performance polymers used in demanding operating environments, these plastics are worth exploring for your next project.

Silicone

- Biologically inert; it can be used inside the human body with no adverse reaction.
- Commonly used in the medical industry for various applications.

Polyamides/Nylons (PA)—PA6, PA66, PA666, PA10, PA11, PA12

- Highly versatile material in terms of use. Properties depend on type and processing.
- Applications range from textiles like nylon stockings to the intake manifold of an automotive engine.
- It can be used to replace metal components to reduce part weight.
- It achieves high strength when filled with glass fiber.

Polycarbonate (PC)

- Incredibly high impact, heat, and UV resistant.
- Has excellent optical clarity.
- Can be used in bullet proof glass, safety glasses, automotive interiors, outdoor appliances, etc.

Poly (1,1,2,2 Tetrafluoroethylene) or TEFLON

- High strength and toughness.
- Has good flexibility at temperatures of 194°F or higher.
- Has a melting point of 600°F.
- Low water absorption, anti-adhesion ability, low friction.
- Can be used in performance-demanding applications such as bullet-proof vests, gaskets and seals, anti-stick cookware, anti-friction devices, and medical device coating due to its chemical and corrosion resistance.

Liquid Crystal Polymer (LCP)

- Exhibits a highly ordered structure in both melt and solid states.
- LCP can replace such materials as ceramics, metals, composites, and other plastics due to its strength at extremely high temperatures and resistance to all chemicals, weathering, radiation, and burning.
- LCPs have heat deflection temperatures up to 610°F at 264 psi when reinforced with glass fiber.
- Contains a high melt flow and can be molded into large, thick-walled parts as well as thin-walled components.
- Used in applications that require resistance to high temperatures and chemicals.

Click [here](#) to explore all the plastics Xcentric has in stock for your injection molding projects.